

**EMIC PERSPECTIVE OF INTELLIGENCE  
IN THE PUNJABI CULTURE**

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(Dr. Muhammad Pervez)  
*Supervisor*

Dedicated to

*My Father, leading my  
life to love for knowledge*



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## ABSTRACT

*The present research purports to investigate the emic perspective of intelligence in the Punjabi culture of Pakistan. It has adopted the emic research strategy as used in cross-cultural psychology. The first step according to the emic research strategy for intelligence is to identify the indigenous conception of construct in respective culture. Accordingly, the present research was carried out in three phases to identify the emic perception of intelligence in the Punjabi culture. First phase of the study consists of two steps. In first step an anthropological interviews of 105 illiterate cultural informants have been conducted in the rural area of Punjab. In this stage different words, statements and themes relevant to emic conception of intelligence have been collected. In second step 30 common themes and statements related to emic conception of intelligence have been finalized by three independent judges. Second phase of the study purports to explore the behavioral manifestations of these 30 themes and statements. Again 105 rural cultural informants of Punjabi culture described the operational aspect of these 30 themes. They gave statements, for each theme independently, which are representing the behavioral manifestation of these themes. In the third phase, accumulated results regarding emic intelligence have been compared and contrasted with etic criterion of intelligence measure of western cultures. This comparison highlights an incidental advantage of the emic strategy to develop respective indigenous concepts. Finally the emic perspective of intelligence is identified. It is embedded in the Punjabi socio-cultural milieu, it is pluralistic and not unitary, and manifests in local perspective. Emic intelligence has social, ethical and affective aspects. It is strongly related to the environment. In its content and construct, it is collectivistic and is not isolated and individualistic. It is remotely possible to assess the emic intelligence in a unitary measurable form.*

# INTRODUCTION

## INTRODUCTION

The emic perspective of intelligence gained importance when traditional models of intelligence lost their strength. In 20th century a particular theory of intelligence, named strength model (with prevailing theme of treating intelligence as a power and capacity and as an innate attribute that varies quantitatively between individuals), dominated the field and distorted the research programme in the area of intelligence. This resulted into the crises of professional uncertainty and damaged public confidence about intelligence.

First, the terms Emic and Etic, which are not new to psychologists, will be clarified, then the current situation of the concept of intelligence will be discussed. Subsequently, the study of intelligence, specifically embedded in the context of Punjabi culture, will be focused. In this particular frame of reference, the indigenous and local (emic) approach to intelligence will be described with particular reference to ethnic science (ethnography), psychological anthropology, culturalogy, cultural anthropology, psycholinguistics, comparative cognitive psychology, implicit (folk) psychology and cross cultural psychology.

The behavioral interpretation of so called "emics" and "etics" are attributed to well-known psychologist, Pike (1954). Infact, these are the linguistic distinctions of phonemes and phonetics. The disciplines of linguistics, anthropology and cross-cultural psychology are often forced to take into consideration the descriptive units of the people they study. These suffixes serve this purpose, and on the cultural level these suffixes have been used to distinguish terms employed by the people studied from terms stemmings from the discipline of the investigator (Lindzey & Elliot, 1985). Emic and etic suffixes can also be

understood otherway: Conceptions derived from the internal logic of a culture are emic; universal conceptions and cutting across cultures are etic. In cross-cultural studies, researchers attempt to use emic concepts but relate them to etic constructs. By using emic concepts, it is believed that one can capture some of the essence or idiosyncratic reality of a culture. By using etic constructs, one attempts to communicate this information to persons outside the culture.

Amplification of the "emic" term requires contextual treatment, a procedure that linguists and anthropologists do as a matter of form (not as a matter of content only). There has not really been any issue in psychological anthropology about the employment of an etic versus an emic approach. It seems to have become more of a problem for cross-cultural psychology, where it has been assessed (Lonner, 1986) as one of the major issues in the discipline. The difficulty for cross-cultural psychology stems from the fact that many of the descriptive units used in psychology as a whole turn out to be culture specific and do not make sense when applied to other cultures. When these units are passed through a test, on which comparative judgments are made, the errors are compounded, because the comparison is inclined to favor the population on which the test was constructed in the first place. Various viewpoints in emic-etic problem have surfaced in the cross-cultural literature (Berry, 1969; & Price Williams, 1975).

The emic approach is an analysis of culture through the actual thought process discernible from within culture itself. In contrasts in the etic approach the analyst imposes his own theoretical distinction on the cultural phenomenon he or she is examining. The emic approach encompasses content and inherent meaning as experienced by the participants in the culture, while etic approach is more concerned with general structural pattern which are found in the culture.

Some psychologists recommend that the "cultural specific" expression is more suitable to emic strategy and "cultural comparable" to etic strategy. In late nineties, Enriques (1979) introduced that cross emic and cross indigenous expressions (with specific strategies) gained strength.

## **Etic Vs Emic Intelligence**

### *Actor-Oriented Perspectives Vs Observer-Oriented Perspective*

The etic-emic view in intelligence emerges from cross-cultural psychology. First, in the fold of personality, different aspects and dimensions, being found by researchers, are culture specific, and contextual in nature. Some traits of personality are highly specific and unique to a certain culture, and even subculture (cult-unit).

In early sixties and late fifties, so many tests, applied to different cultures, established a sound view of emic-etic approach. Structural analyses have been conducted cross culturally with the following tests and measures: MMPI (Butchar & Pancheri, 1976), Eysenck's EPQ and JEPQ (Bijnen, Van Der Net & Poortinga, 1986; Eysenck & Eysenck, 1983); Cattell's 16PF (Tsujloka & Cattell, 1965); Gough's CPI, various locus of control measures (Hui & Triandis, 1983; Niles, 1981), and different other measures.

So many tests have been translated or adopted in many cultures but some discrepancies and flaws are there in personality and intelligence measures. To assess intelligence, various tests are adopted and "indigenization" of content and procedure of Western countries is undertaken (Irvine & Berry, 1983; Ord, 1971). The advantages of adopting western-type tests include efficiency, their tie to an accepted conception or construct of intelligence and their record of success in

predicting societal criteria (e.g., Bhatia, 1955; Irvine, 1983; Ord, 1971). Use of western-type tests in other cultures constitutes an imposed etic approach to cross-cultural assessment (Berry, 1969). Such an approach imposes constructs and measures onto new culture for which they may be less relevant. While by passing the conceptual system of host culture, they may, however, predict specific criteria, such as performance in a western-type school (Biescheuvel, 1969).

In contrast, an emic approach attempts to assess the culture's indigenous conception of intelligence. Such an approach is consistent with a contextual view (Sternberg, 1984), which defines intelligence in terms of the knowledge, skills and behavior that constitutes adaptive performance within a given sociocultural milieu. The cultural relativity of intelligence conceptions is also noted by theoretical alternatives to the psychometric intelligence construct under the rubrics of competence and adaptability (Biescheuvel, 1972; McClelland, 1973). These approaches point out the need to assess the ecologically relevant tasks required of the individual and how well he or she performs them.

One basic assumption of cross-cultural psychologists during the past 25 years has been that "pseudoetic" approach must be avoided. This approach assumes that a dimension is etic when in fact there is no evidence that it is (Triandis, 1973). For example, taking an intelligence test to another culture without the construct – validation procedures outlined by Irvine and Carroll (1980) is pseudoetic work, since cultures differ in their concepts of intelligence. Berry (1969) calls such an approach, "imposed etic". He recommended use of "derived etic" measures, which are likely to capture the important attributes of concepts, found in more than one culture.

Four steps in an emic strategy in intelligence assessment:

1. Emic concepts are identified.



2. Emic conceptions are incorporated into assessment procedures.
3. Emic measures are submitted to construct validation studies.
4. Emic measures are related to those tapping imposed-etic conception of intelligence in a search for derived-etics (an empirical convergence of two culture conceptions of intelligence).

Several researchers have persuaded the first step by asking culture bearers about their conception of intelligence (Berry, 1984). Other use more structured methods to explicate cultural differences in semantic measuring of intelligence (Wober, 1972; Super, 1983; Chen, Braithwaite & Haung, 1982). Some studies have implemented the second through fourth steps of emic strategy (Bhatia, 1955; Irvin, Klein, Engle, Yarkrough & Nerloue, 1977; Klein, Freeman & Miller, 1973).

The following table gleaned from Pike's (1966) comments exemplifies distinction.

<b>Emic Approach</b>	<b>Etic Approach</b>
1. Studies behavior from within the system	1. Studies behavior from a position outside the system
2. Examine only one culture	2. Examine many cultures, comparing them.
3. Structure discover by the analyst	3. Structure created by the analysts
4. Criteria are relative to internal characteristics.	4. Criteria are considered absolute or universal.

## Conceptualizing Intelligence

The concept of intelligence is not new but have a long history as long as our own society and man itself. Greek philosophers Plato (427-347 BC) and Aristotle (384-322 BC) gave the basic idea of intelligence. Plato gave a three parts of soul, which are nearly equivalent to intellect, emotion and moral aspects. Aristotle reduced Plato's three-fold classification who two folds what he calls the "*DIANOETIC*" (cognitive) and "*ORECTIE*" (emotional and moral). Finally, Cicero (1661), coined a Latin term for a Greek name, translated Aristotle's term "*DIANOL*" into new word "*Intelligentsia*" (Burt, 1955; & Jensen, 1980). They pointed out the notion of intelligence found in great text of Hindu and Ancient Greek.

From Aristotle to Oskham, intelligence remained the subject of much discussion. The discussion often sounds familiar to the modern reader, but it is worth pointing out that the middle ages was neither silent nor consistent on the subject as Burt (1955) implies. Instead, it was period of great productivity and diversity of formulation.

Oskham is usually considered to be the last philosopher of the middle ages. The period which follows is marked by a new and distinctive brand of individualism in a rapidly changing Europe which came to permeate all philosophy and psychology. As Russell (1959) put it, in Descartes phrases "I think therefore I am", everyone is thrown back on his own personal existence as a basis for knowledge", and in Hobbes we see the ultimate functional character of this individualized intelligence in the "war of all against all", it became even more important when the competitive struggle at home, and the ideology that went with

it, became extended abroad in the shape of imperial conquest, colonization and slavery. These developments profoundly influenced conceptions of intelligence.

In the beginning, perverted Darwinism sought genetic explanation of species (included human sapiens) origins. Spenser held that the minds of the inferior races can not respond to relations of even moderate complexity, and the intellect of the savage is "sudden in its inferences", in capable of balancing evidence and adhering obstinately to first impression. Spensor's ideas were chosen up by Galton and subsequently by Binet psychology (Binet, 1916), thus became identified with an increasing use of physical metaphors, like efficiency or capacity, at the expense of operationalized psychological processes. Thus, Spearman (1927), spoke of "general mental energy"; Cattle (1971) made a distinction between "crystallized" and "fluid" intelligence; and Jensen (1973), in the same tradition, writes about level I and level II abilities.

As far as processes rather than dimension are concerned, these show little advance on medical or even classical definitions. Defining his general mental energy Spearman (1927) spoke of the "education of relations and correlates" and Burt (1955) about the "perception of relations". Thurstone (1938) recreated the multi dimensional model; Vernon (1950) reconciled them within a single hierarchy. All these models are simple variations on the same "strength" theme. Intelligence is an (innate) attribute that varies quantitatively between individuals. This theme also served as several important socio-political functions.

Other theorists of 20th century emphasize on intelligence as an abstract conception differently and strengthen the traditional notion of intelligence as ability, capacity, learning power, understanding verbal and mathematical concepts, performing certain tasks and adaptation of new situation. Wechsler (1958) declared it a global or aggregate capacity to act purposefully, to think

rationally and to deal effectively with his environment. Heim's (1975) view intelligent activity consists of grasping the essentials in situation and responding appropriately to them. Terman (1921) defines it as the capacity to form concepts and to grasp their significance. Brown (1976) writes that intelligence is the ability to perform certain types of tasks. Guilford structured an "intellect model", having 120 independent abilities by an intersection of five mental operations on four contents to produce one of six products. For Piaget (1967) it is an adaptation to social and physical environment; Cronbach (1977) regarded it as a style of work.

### **Traditional Approaches to Intelligence**

- i) Psychometric approach
- ii) Developmental approach
- iii) Cognitive or information processing approach
- iv) Neuro-Biological (genetic) approach

#### ***Psychometric Approach***

It is also known as differential and correlational school of psychology. While major theorist stressed on different variables of intelligence and understanding intelligence as measured by intelligence test. The research domain mainly determines the structure of mental abilities by correlational and factor methods. Major interest is in trait, extracted by different theories. Binet stresses on judgment, and reasoning. Likewise Spearman's principle of education of relation and correlates forms the concept of intelligence. Thurstone (1938) and Guilford (1967) measure verbal, numerical and spatial abilities. Vernon Hierarchical Model (1960) emphasizes on verbal educational model of intelligence. Cattell (1971) gives "fluid" and "crystallized" intelligence. Thorendike gives an "atomistic"

theory of mental ability. Jensen (1973) give two types or level of ability as compare to Cattell. At one end is culture free (fluid), and at the other end "cultural loaded" (crystallized) material.

Miles (1957) has objection on behaviorist tradition that intelligence is a "redundant concept". This is a circular argument that intelligence is what intelligence test measures. Cognitive psychologist, e.g., Hunt (1978), Carroll (1983) and Sternberg (1977) also raised objections on factor analysis.

### *Developmental Approach*

Developmental theorists give an idea that intelligence is increased by an age, upto adulthood. Piaget (1952) described the three major stages of intellectual development, namely sensory motor, concrete operation and formal operations. Piaget gives nature of thought processes on different stages to describe intelligence. For Piaget, the nature of intelligence is a process of organization and adaptation which is forever changing and is not an entity or quantity. He gives an idea of equilibrium, assimilation and accommodation to grasp external world in different stages. Major criticism on Piaget is on his stages. Do these stages exist, duration consistency, individual difference and future prediction is not assessable. Bruner (1964) introduces an intellectual technique as modes of representational thinking. Bruner gives importance to language and culture in the development of intelligence.

Another theorist, gives a "developmental approach", like Piaget is that of Hebb (1966). He highlighted the work of brain tissues in the form of "Schemata". Central nervous system has an important to learn, how to learn also imagine and reason. He constitute two types of intelligence: "Intelligence A", which is the innate potential (Geno type), the capacity of central nervous system to deal with

schema; the capacity of development, that is, the possession of good brain and good neural metabolism. Intelligence A is not measurable or observable. Intelligence B which is function (pheno type) of brain and CNS, it can be observed directly in an individual's behavior and thinking the result of interaction between Intelligence A and the environment. Hebb (1966) argued that these two intelligence (A and B) are not entirely separated but are necessary component to each other.

### ***Cognitive or Information Processing Approach***

Cognitive psychology is dominated by the information processing approach, which analyzes cognitive processes into a sequence of ordered stages. Each stage reflects an important step in the processing of cognitive information.

Cognitive structure, cognitive taxonomy and cognitive performance are mainly researched by different researchers of different allied disciplines. Life span changes in cognitive structure, found and analyzed by developmental psychologists. Horn's (1978) neurological bases of cognitive function also inquired and long lasting problem of mind body investigated by relating psychic processes to underlying physiological processes. Brain localization and question of dominance (of Hemisphere) has served a basic concept in the theories of neural organization (Sperry's, 1973).

Information processing paradigm contributed much to the cognitive approach of intelligence. Carroll (1980) has attempted a classification of research in experimental cognitive psychology in terms of following eight distinct information processing paradigms (Verster, 1975).

1. Perceptual apprehension (e.g., Richards & Platnick, 1974).

2. Reaction time and movement time (e.g., Jensen, 1979).
3. Evaluation and decision (e.g., Anderson & Reder, 1974).
4. Stimulus matching/comparison (e.g., Clark & Chase, 1972).
5. Naming, reading association (e.g., Stroop, 1938).
6. Episodic memory read out (e.g., Sternberg, 1977).
7. Analogical reasoning (e.g., Sternberg, 1977); and
8. Algorithmic manipulation (e.g., Hunt, Lvnneborg, & Lewis, 1975).

A set of the term most commonly assumed cognitive processes, across the eight task paradigms of cognitive psychology, is identified for detailed analysis (Carroll, 1981).

Furneaux (1960) suggested that central to all cognitive information processing is some kind of scanning mechanism, its determines the probability of the right solution being brought into focus more or less quickly. This notion is developed by Eysenck (1967) to provide an explanation for the failure of simple reaction time experiments to correlate with intelligence.

One important paradigm in the broadly defined domain of cognitive science is artificial intelligence or AI, (Miller, 1978; Simon, 1979). AI research justified the premise that the processing of information by machine can be studied as worth while scientific endeavor. Machine processing is used purely for the purpose of testing the feasibility of hypotheses developed to account for aspects of human information processing. Expert system is computer programs that are built to match human expertise in some domain. The MYCIN system was created by Shortliffe (1976, 1984) at Standard University. Searle (1980) gives an influential critique of machine intelligence.

### *Neuro-Biological Approach*

On the relation between mind and brain, neurological and electrophysiological studies have been carried out to find the bases of intelligence. Hendrickson and Hendrickson (1980) have proposed a striking new theory. The theory is intended to explain the biological bases of individual differences in intelligence. It assesses the information processing in the nervous system. Sperry's (1973) finding led him to conclude that cerebral dominance and hemispheric specialization may be inherent principles of neural organization, which are innately determined. According to Sperry that the two hemispheres appears to have independent identifies, each with its own unique senses, feelings, thoughts and aspirations. Sperry emergent interaction theory states that conscious awareness is a dynamic emergent property of cerebral excitation, yet it is something more than just the sum of neural, physical and chemical events. Conscious phenomenon is considered to interact causally with physical brain processes, giving direction to the flow and pattern of cerebral excitation to which, in term, conscious experience owes its existence. Halstead's (1961) concept of "biological intelligence and Hebb's (1972) theory of intelligence focuses on innate and biological base of intelligence.

What kind of trait is intelligence likely to be? Theoretical analysis (Slobodkin & Rapoport, 1974; Mayr, 1974) suggest that the evolutionary origins of learning, or "open genetic system" generally, are those of a system required to be adaptive to highly unpredictable environments and thus imparts life-long phenotypic flexibility to the organism.

In so far as we equate intelligence with such a system, it can not be like simple morphological characters, which are adaptive only to relatively constant environments and whose mode of tracking of environmental changes is the slow



process of genetic mutation/recombination and phylogenesis. That is, intelligence can not be like those character either genetically or phenotypically. Mayr (1963) introduced the term "polyphenism" and defined it as the occurrence of several phenotypes in a population, the differences between which are not the result of genetic difference. Shapiro (1976) deplored the neglect of the polyphonic concept in behavioral science despite the fact that Dobzhansky (1970) and Waddington (1975a) urged its adoption as the basis of major synthesis.

What the genetic system itself is? If, as Slobodkin and Rapport (1974) argue, the evolutionary process can develop a genetic system which produces, under appropriate environmental circumstances, individuals whose behavior is directly and permanently modifiable by the environment. What qualities will that genetic system have? The qualities, implicit or explicit, in the biometrical models prominent in nature-nurture issue are those of an aggregate of independent genes having additive "effects" on the phenotype which develops in a constant environment. Kempthorne says, "The basis throughout has been that we have primitive zygotes containing nothing but the genotype as biochemical "stuff", of course, and the primitive zygote is placed in a random environment".

Johnson (1981); Lewontin (1979) and Charlesworth (1976) worked in evolutionary biology. A guiding principle, here, is what Lewontin (1979) calls the "adaptations programme", the objective of which is a satisfactory description, of the form function type, of the relationship between a specific aspect of the phenotype and of a specific ecological circumstances. Thus, according to this view, intelligence identified as learning ability has evolved as an adaptation to a species niche and can only be elucidated by understanding that niche. Dobzhansky (1970) illustrates the point that intelligence is about adaptability as well as adaptedness. In simple terms, we would say that intelligence is a character

resulting from evolution in unpredictable environments. Thus, it can construct its own abstract representations of external reality, in all its variability and novelty, and provide for the creation of equally novel responses to it.

### **Redefining or Reanalysis of Intelligence**

Research in cross-cultural psychology demonstrate that there are not one, but many kinds of intelligence (Berry, 1972; Goodnow, 1976; Neisser, 1979; Gardner, 1983). Cultures differ in the value they place on generalization and on the search for common features in desperate experiences. Cultural differences in task interpretation may also influence what individuals select from their available response repertoire.

Viewing the diverse concepts of intelligence from a different angle, Neisser (1979) proposes that intelligence is not a quality of a person but a resemblance to a prototype. There are multiple prototypes of the "intelligent person" across cultures. Some sociologists have coined a term, modern consciousness, to describe the psychological effects of being reared and educated in advance industrial societies. Similarly, Olson (1976) observes that intelligence test measures how well the individual has mastered the techniques of abstraction and rationality.

Gardner (1983) introduced the notion of multiple intelligence and elaborates that there are seven intelligences: Linguistic, logical, spatial, mathematical, bodily kinesthetic, musical, interpersonal and intrapersonal. Information processing theory also describe in the specific sense that a person's intelligence is more appropriately thought of as his or her "stock" of concepts at any one time which entails, first and foremost, an entirely qualitative description.

Valsiner (1984) concludes in the system of meeting of members of a given culture (including psychologists of that culture as a category of "sophisticated lay person"), intelligence tends to be attributed to the person, or to the personified environment. These ways of social attribution of intelligence, as a "causal entity", are in full accordance with the common sense and value system of the given culture. Not surprisingly, people with different cultural background differ in the sets of characteristics associated with intelligence or intelligent person. He stressed that we define intelligence within the framework of the dynamics of person-environment transaction, without abstracting it from the context of human activities. Intelligence is a "process than an outcome" of organism-environment transaction. It is a dynamic relationship attribution.

Richardson and Bynner (1984) argues intelligence is evolved and is best conceived as a "highly adaptable psycho-biological system that has the properties, from a biological point of view, of a behavioral polyphenism and from a psychological point of view of a "conceptual historical system".

Olson (1976) argues that intelligence is "something we cultivate by operating with a technology, or something we create by inventing new technology", and that "test performance reflects those abilities as amplified by the technologies of the culture".

Sarason (1981) concludes by stressing that whereas cognitive and motivational processes are discovered, intelligence is invented. Intelligence is convenient label for the collection of dispositions that in combination result in adaptive behavior in a certain socio-cultural milieu.

Anastasi (1990) gives comments on the new vistas of intelligence in reference to information processing and cognitive abilities and concluded that researchers must apprehend the intellectual demands of real life. Definitions are

representational toward the whole phenomenon of life. Studies done in the different areas with multiple aptitude may be shared conceptualizations rather than address the true nature of reality.

Human intelligence is a result of an interaction of accumulated knowledge with special capabilities for processing certain kinds of information. (Anderson, 1990). There is no scientific basis for a unitary concept of intelligence such that we can judge one person as more intelligent than another in the same way we can judge one person taller than another.

### **Current Themes of Intelligence**

In the last quarter of twentieth (20th) century past general notion of intelligence have been changed. Leading psychologist and researchers of our time, viewed intelligence differently. Researcher of modern era have presented both diverse and complementary approaches to conceptualizing intelligence and its functioning (or cognitive functioning). They bring varied theoretical and methodological resources to discover innovative notion of intelligence. Major themes of our time are as follows:

- i) Contextual view of intelligence.
- ii) Pan-cultural characteristics of cognitive competence in intelligence.
- iii) Process structure view of intelligence.
- iv) "Alternative view" of intelligence.
- v) Piagetian metatheory perspective of intelligence.
- vi) Implicit, attributional representation of intelligence.
- vii) Cognitive science analysis of intelligence.

- viii) Emotional intelligence.
- ix) Multiple intelligence.
- x) General system approach to intelligence.

*i) Contextual View of Intelligence*

Contextualist view of intelligence was presented by Sternberg (1982). He emphasizes the embeddedness of intelligence in its own social-cultural and ecological context. The idea of eternal invariant in conceptualizing and defining intelligence seems unreasonable and undesirable. Sternberg (1987) summarizes his view of intelligence by stressing that it is a convenient label for the collection of dispositions that in combination resulted in adaptive behavior in certain social-cultural milieu. It is not any single thing either within or between such milieus, rather it is a complex mixture of ingredients that can differ from one socio-cultural milieu to another.

*ii) Pan-Cultural View of Cognitive Competence in Intelligence*

A second theme stressed the importance of cultural relativism in defining and explaining the meaning of intelligence across world-views. In this regard, Berry (1980, 1981, 1982) proposes a framework for exploiting the universal features of cognitive competence and functioning. He seeks to observe important variations of cognitive competence in variety of cultures, and at the same time, stresses the search for pan cultural characteristics of cognitive competence. This second theme pays attention to the tension between the need for a locally sensitive or culturally relative conceptualization of intelligence and its assessment, and the long-term goal of achieving a cross-cultural or universal understanding of cognitive competence.

### *iii) Process-Structure View of Intelligence*

Valsiner (1984) recognizes the importance of cultural relativity in the definition of intelligence and suggests a number of difficulties in the building of a general theory of intelligence based upon the meaning of intelligence in the common sense of a given culture or cultures. He cautions that the psychologist's task is to transcend the limitations of the culture-specific common sense meaning and understanding of intelligence. Valsiner (1984) proposes an ecological reconceptualization of intelligence in which intelligence is seen as the dynamic relationship between the actor and the environment, (with the actor engaged in problem solving goal directed activity). Valsiner postulates that the intelligence as a dynamic relationship can not be attributed to either the actor or environment but it must be operationalized in terms of process structure. The dynamic organization of the actors goal directed actions both in the ecological niches of the culture as well as within the culture as a whole.

### *iv) "Alternative View" of Intelligence*

In this theme the "alternative view" of intelligence, which Goodnow (1980) proposed, focuses not on what intelligence "is" but rather on the way in which the statement is made that someone is intelligent or stupid. A fourth theme represents the important shift from conceptualizing intelligence as a quality people possess, in varying degrees, to regard it as a judgment that people make of what is intelligent functioning. In order to explain and interpret this shift. Goodnow examines questions and concepts related to the process of judgement, the rules and protocols underlying the display of intelligent behavior both by person judging and those being judged. The strategies used by those being judged to evade evaluation and finally the developmental aspects to judgments, rule acquisition and protective

strategies. For each of the issues, theorist suggests that we consider both situations of formal testing and every day judgments together with their developmental aspects.

v) *Piagetian Metatheory Perspective of Intelligence*

Piagetian stage theory and metatheory, which, since 1960, has had a marked impact on the meaning and assessment of intelligence and cognitive development particularly in western psychology. Dasen who discusses the methodological problems of using Piagetian tasks to measure general cognitive level represents this area of interest. Dasen also draws attention to the cultural relativism aspect of intelligence, either it is from a Piagetian or any other perspective. General texts on cognitive development and Piagetian theory by Flavell (1985); Seigler (1986); and Mussen's (1983) gives detail on the field of developmental psychology. Seigler (1978) and Sophian (1984b) describe an information processing approaches to cognition.

vi) *Implicit, Attributional Representation of Intelligence*

Implicitly, different societies and sub-cultures perceived intelligence in different ways, they ascribed to their own disposition. Studies have been made on value judgment and perceived level of specific culture. Even it is found within the culture as Fry (1984a) addresses the issue of whether teachers at various levels of the educational system are explicitly aware of their implicit view of what constitute intelligence functioning in their students, the social, verbal and cognitive attributes of "intelligent student" at the elementary, secondary or tertiary level. Fry concluded that in their overall ratings of intelligent student, most teachers stress cognitive dimension of intelligence than the social and verbal

dimensions. At the implicit level, however, tertiary teachers attached great importance to social and verbal dimensions and attributes. Curtis and Glaser (1984) elaborate the recent advances in memory, problem solving, and knowledge acquisition research and how these advances offer a new frame work for viewing differences in intellectual functioning.

In social psychology, research in the framework of attribution theory has outlined some of the ways that thinking about causes is encoded into the communicative message about causes. The theoretical problems of the explanatory power of the notion of "causal schemata" have been subjected to thorough and thoughtful analysis. Causality can be defined in different ways as unitary (atomistic) or systematic (systems) causality (e.g., Weiss, 1978). The greatest value of empirical research on social attribution for psychology has been that it has demonstrated the psychologists' causal attributions in their science are not different from those of layperson in their culture. We can think of layman, in our cultures, as "naive scientist", but the research perspective upon psychologists as being "sophisticated laymen" is likewise available. In the system of meanings of members of a given culture, intelligence tends to be attributed to the person, or to the personified environment. These ways of social attribution of "intelligence", as a causal entity, are in full accordance with the common sense and value system of the given culture. Not surprisingly, people with different cultural backgrounds differ in the sets of characteristics associated with "intelligence" or "intelligent person". We manage these attributions, if we accept the dynamic approach to intelligence.

In representations, "meaning based representation" and "perception based representation" have been researched and found different in meaning based



memories and perception based memories. Slots or attributes organize propositional network and schemata's.

*vii) Cognitive Science Analysis of Intelligence*

Cognitive psychology attempts to understand the nature of human intelligence and how people think. The study of cognitive psychology motivated by scientific curiosity, by the desire for practical implications and by the need to provide foundations for other fields of social science. Cognitive psychology is dominated by the information processing approach, which analyses cognitive processes into a sequence of ordered stages. Each state reflects important steps to the processing of cognitive information.

Cognitive science concluded that there is no scientific basis for a unitary concept of intelligence such that we can judge one person as more intelligent than another in the same way we can judge one person taller than another. Human intelligence is a result of an interaction of accumulated knowledge with special capabilities for processing certain kinds of information.

The concept of intelligence is too much tied to our humanness and to our culture. It is difficult for us to be able to judge whether computers are more or less intelligent than humans. Rather we can judge them as intelligent in different ways.

*viii) Emotional Intelligence*

Salovey and Mayer (1990) first proposed the model of emotional intelligence. Salovey subsumes Gardner's "Personal intelligence" in his basic definition of emotional intelligence, expanding these abilities into five main domains. Knowing one's emotions, managing emotions, and motivating oneself, recognizing emotions in others and handling relationship.

Personal intelligence would not be ignored, mainly because it makes both interactive and common sense. Sternberg (1980) asked people to describe an "intelligent person", practical people skills were among the main trait listed. Block (1995) analyzed data from a longitudinal study of about a hundred men and women in their ten years and early twenties, and used statistical methods to assess the personality and behavioral correlates of high IQ independent of emotional intelligence's, and emotional intelligence apart from IQ. There is, he finds, a modest correlation between IQ and ego resilience', but the two are independent constructs. Ego resilience rather than emotional intelligence includes main components like emotional self-regulation, and adaptive impulse controls a sense of self-efficiency, and social intelligence. Goleman (1996) gives a detailed study of emotional intelligence with different implications.

*ix) Multiple Intelligences*

Gardner (1983) first introduced the novel theme of multiple intelligence, in frames of mind. The theory of multiple intelligence, Gardner defines multiple intelligence as our capacity to solve problems and to fashion products in a context rich and naturalistic setting (Armstrong, 1994). Gardner maintains that there are seven intelligences: linguistic, logical, mathematical, spatial, bodily – kinesthetic, musical, interpersonal, and intra-personal. There exist four key points in the multiple intelligence theory. Every one posses all seven intelligences, second is some intelligences are highly developed and some are under developed. Third point is that these seven intelligences usually work in concert and not alone. Fourth point is that there are many ways to demonstrate intelligence within each category.

However, do multiple intelligences differ from learning styles? Gardner (1993) maintains that they are similar, but they begin and end in different places. He states that proponents of learning styles seek to describe an individual in terms of one approach to learning for all content areas. Gardner feels that the discipline (intelligence) dictates the approach that an individual will use to acquire knowledge. The seven intelligences spawn intelligent behaviors. Costa (1991) listed fourteen (14) intelligent behaviors. Gardner (1983) proposes a contextual view of intelligence. Human beings are equally biological and cultural creatures. Gardner stresses that the culture determines an individual's core intelligences to meet the cultural needs. We depend on others to understand our writing and any other forms of communication. Since few humans are totally self-sufficient. Even in a cognitive sense, we depend on others for our survival.

*x) A General System Approach*

Verster (1984) elaborates human cognition and intelligence toward an integrated theoretical perspective. He stresses general system approach in science. Reliance must be placed on some kind of wider conceptual framework for guiding research and for organizing and integrating new data from different disciplines.

This conceptual framework (Royes, 1980) has the advantage of being accommodated within the over all context of general system theory. The cognitive system conceived to be organized on successive hierarchical levels, from molecular to molar. Structural features and process features of cognition are jointly accommodated and can be inter-related. A temporal dimension makes provision for the description and analysis of developmental change over the entire human life span, in response to both biological (genetic) and environmental (learning) causal influences.

Sternberg (1984) also gives a conception of Triarich theory of human intelligence. The Triarich theory integrate intelligence and internal world of humans (componental sub-theory) external of human, (conceptual sub-theory) and intelligence and experience or the mediating role of ones (experimental sub-theory) passage through life between the internal and external worlds of the individual. The Triarich theory has certain implications both for the assessment and the training of abilities.

Eysenck (1981, 1982a, 1984) illustrates the such kind of system which requires thorough analysis before we can come to any agreed conclusions about human intelligence, clearly the distinction between "biological intelligence" and "social intelligence" is a vital one, as is the relationship between these two; and between them and "psychometric intelligence". A recognition of the complexity of the system, and of the need to recognize the precise type of "intelligence" one is arguing about, must be a precursor to any agreed formulation of both the problem and the solution of the puzzle presented to science by human intelligence. It is clear that some form of general system approach will be required to unify the different aspects and areas loosely grouped under the general heading of intelligence.

### **Contribution from Allied Fields**

The late Ronald Hargreaves of the World Health Organization and the University of Leeds once stated that our great difficulty was that God had not divided up our problems in the same manner as universities had divided up their faculties and departments. In the area of cross-cultural psychology and comparative cognitive psychology as the lines of demarcation between disciplines did begin to break down, and communication across disciplinary lines, especially

in the case of psychology and anthropology, (with sub-disciplines e.g., culturology, linguistics and ethnoscience), occurred with increasing frequency and effectiveness in mutual directions.

In psychology, the topic under consideration is embedded in cross-cultural psychology, and cross cultural psychology is influential in encouraging cognitive psychologists/anthropologists to question the degree to which culturally related factors determine conceptualizations of the nature of intelligence. The extent to which the construct of intelligence has shared meaning across a variety of cultures is of considerable theoretical significance and is of practical significance also. This implicit conceptualization of what constitutes intelligent behavior influences evaluations of performance, the expectations that adults hold for the development of children and attributions of different levels of inherent ability in the society.

As far as cross-cultural psychology is concerned, this study overlaps in multiple areas of different disciplines and sub-disciplines. It is directly related to cultural anthropology, psychological anthropology and culture itself. Ethnoscience or ethnography also encompasses intelligence and cognition with techniques, such as componental analysis to balance the culture-specific and culture-free orientations. Comparative cognitive psychology deals this relative topic effectively in different cultural groups. Implicit or folk psychology studies the attribute of intelligence in different cultures particular to a single one. Linguistics and psycho linguistics explain different characteristics of language, which determine its influence on cognition and intelligence. Cognitive anthropology is also concerned with how the material aspects and units of society organize the human intelligence.

Cultural anthropology deals with the study of culture in all its aspects and uses the methods, concepts, and data of archaeology, ethnography, ethnology, folk

lore and linguistics in its description and analysis of the diverse people and their competencies (e.g., intelligence) of all over the world.

Psychological anthropology seeks to determine the nature of the interaction between the individual and his culture. Psychological anthropology led psychologists to recognize the existence of an inevitable cultural component in all processes of perception, motivation, learning and intelligence.

In the study of intelligence culture and cultural factors are very relevant and valid. The integrated pattern of human knowledge, beliefs and behavior leads to specific culture. Culture, thus defined, consists of language, ideas, beliefs, customs, cognitive styles, taboos, codes, institutions tools, techniques, works of art, rituals, ceremonies and other relevant components. Variation among socio-cultural systems is attributed to physical habitats and resources, and to the range of possibilities inherent in various areas of activity (e.g., intelligence and its value), such as language, rituals, customs and the manufacturing and use of the tools and the degree of social development. The attitudes, cognition, values and beliefs of the individual are greatly influenced by the culture.

The acquisition of cognition, as well as of complete cognitive maps, is a necessary psychological condition (cause) for the performance of single custom and for the maintenance of an entire social system. Cognition can regulate behavior, but it is not identical to it. The performance of customs requires that the actor absolutely learns about the custom (acquisition of cognition), and that he learns to perform what he has learnt (acquisition of behavior). Hamersley and Atkinson (1983) described ethnography as:

"Ethnoscience's interest in cognition develops such techniques to explore the micro-contextual elements to achieve keen balance.

There is disagreement as to whether ethnography's distinctive

feature is the elicitation of cultural knowledge (Spradly, 1980) the detailed investigation of patterns of social interaction (Gumperz, 1981) or holistic analysis of societies (Lutz, 1981)".

Chomsky (1968); and Piaget (1976) saw language as a window onto the mind. Likewise, the present study also gives importance to the language to examine the indigenous conception of intelligence. In linguistics, some issues or themes are important and recurring in the study of language. The linguists generally undertake constraints on development, the complexity of conceptual system, the role of theory and communication and social interaction.

The notion of constraints on semantic structure stems in part from Chomsky's (1988) arguments concerning the acquisition of syntax. He made assumptions regarding language and learning process. Contrary to Chomsky's (1988) approach, semantic constraints are not assumed to be innately specified. By Roberts and Goodman (1985) constraints may be the product of development. Constrain theme also examines closely the interplay between semantic biases and other factors, including world knowledge, the language community and general cognitive predisposition.

Piaget focused on cognitive underpinning reflected in language. Specifically, he considered the role of language in the formation of intelligence generally and of logical operations in particular. Chomsky (1988) was intrigued with linguistic structure underlying language acquisition and use. Piaget (1968) described "language and thought are linked in a genetic circle" where each necessarily learns on the other in an interdependent formation and continuous reciprocal action. He further explains that adequate semantic development requires the appropriate conceptual structures.



Third theme is that theories guide the acquisition of concepts (and correspondingly, language). This is a modern theme growing out of interests of cognitive scientists in expertise and its developmental analogs (see McCloskey, Caramazza, and Green 1980; Murphy & Medin, 1985; Neisser, 1987; Wellman, 1990).

Both Spir (1929) and Whorf (1956) observe language, especially grammatical categories – construct implicit theories of the world. As they point out, there is no single, universal, genetically endowed framework for viewing the world. Rather, an individual's organization of knowledge reflects implicit assumptions about ontology, causality and domains (Wellman, 1990). These assumptions are interconnected, interdependent and to some extent coherent. It is in this sense that our assumptions of what kinds of things there are is "theory laden" (Carey, 1985; Murphy & Medin, 1985). Whorf speaks of a "pattern-system" that is remarkably like what these days is called a "naive theory".

Keil (1989) argues that relations among concepts can have important consequences for word meaning. He discusses important conceptual differences between nominal kinds, natural kinds and artifact concepts.

Linguistic relativity and linguistic determinism, by Whorf and Sapir's writings, are particularly controversial. Linguistic relativity states that "structural differences between language systems will, in general, be paralleled by non-linguistic cognitive differences of an unspecified sort in the native speakers of the two languages" (Brown, 1976). Linguistic determinism states that the structure of anyone's native language strongly influences or fully determines the world-view he will acquire as he learns the language" (Brown, 1976). Markman and Waxman may reflect a weak form of linguistic determinism. Finally (Nelson) suggests that language may make certain conceptual distinctions salient to the child. These



examples suggest that language may, at times, unconsciously pattern the child's view of reality.

Vygotsky's (1962) attention to social systems and their importance for language and cognitive development is distinguishable clearly from Piaget. He stresses that egocentric speech is already and always socialized. He explores that "in our conception, the true direction of development of thinking is not from the individual to the social, but from the social to the individual". All of the linguists agreed that language thought relations are bi-directional and that both conceptual complexity and linguistic transparency influence learning.

Cross-cultural psychology is concerned with the systematic study of behavior and experience as it occurs in different cultures, and is influenced by culture, or results in changes in existing culture (Triandis & Berry, 1980). Cross-cultural psychology studies cultures. In comparison, what units are to be studied Naroll's (1970) gives an idea of "cult unit" for this purpose. Cult units are defined as "people who are domestic speakers of a common district dialect language, and who belong either to the same state or the same contact group.

## **Punjabi Culture**

In this study, an attempt has been made to grasp the folk or local idea of intelligence and intelligent behavior in the culture of Punjab which is sub-cultural or separate cultural area or region in the culture of Pakistan. This study magnifies or amplifies cognitive or learning variables in the emic concept of intelligence in the mind of Punjabi speaking members of cult-unit. The attribution of intelligence in the Punjabi culture regarding importance to implicit theory, subjective cultural approach and contextual analysis of the concept and linguistic point of view

towards the local language and theme of Punjabi culture specific will be discussed in detail

The definition of cult unit is based on time, place and language "*Time*", because we usually are interested in a particular historical period; "*place*", because we emphasize interpersonal contact or political organization; "*language*", because we focus on mutual non-intelligibility. In this connection, a cult unit of "Punjabi" in the province of the Punjab (Pakistan) which is studied in a given time (in 1998-1999), place (central districts of Punjab province) and language of local community with single dialect is selected. It gives a double boundary definition of a cult-unit.

### **Perspective**

Perspective includes theories alongwith models, frameworks and paradigms, and more others. This view about the current intellectual flexibility of cross-cultural psychology may provide the foci for organization of large areas of empirical work in the future. The idea of perspective is much broader than that of theory. As dictionary meaning puts it, a perspective has to do with "the interrelation in which parts of a subject are mentally viewed, the aspect of an object of thought from a particular perspective". Since theories can provide a perspective to view a subject like cross-cultural psychology and can also be the object of other perspective, thus there is a range of perspectives for more than the number of theories. It is important to grasp this distinction and to consider the "perspective", here, as the broad, shifting and flexible thing. Some theories from psychology, which have been worked on cross-culturally and some models paradigms, frameworks and other perspective, have emerged from the works of Whiting (1968); & McClelland (1979).

## Related Research Review

Irvin (1966, 1969, & 1970) began the empirical study by examining proverbs in common use among the Mashona People (Zimbabwe). He began by collecting one hundred (100) sayings and beliefs from Hannon, 1959, which regulated behavior in the social system and represented ground rules for intelligent and purposive acts that can be fully understood only within a world-view, that is African. The follow up work of Irvine 1966, 1970, 1979a, , 1981, 1983, 1985, 1986 and the reviews of Irvine and Sanders (1972), Irvine and Carrol (1980), Berry and Irvine (1986), and Irvine and Berry (1987) contain incidental experimentation in testing procedures, and come closest to a programme of research.

Wober (1972, 1974) attempted an empirical study which put into practice a challenge he had earlier issued to cross-cultural psychology (Wober, 1969). The essential task of testing in other cultures is to find out how well individuals perform their own skills, rather than how well they perform the more exotic tricks brought in from the outside by psychologists. Wober with a number of different samples identified the indigenous conception of competence in its broad spectrum by analyzing the Kiganda (Baganda People, Uganda) literature on what the traditional educational system attempted to teach children and administered a semantic differential task on which individuals rated the "obugezi" concept on twenty five bipolar adjective scales.

The overall goal of Serpell's (1974, 1977) research was "to define a realistic frame work, within which, to develop some formal tests of intellectual functioning for use in Zambia". The initial step was to ask five adults to provide ratings of village children around ten years of age. Then 42 children, who had been rated

were then given psychological tests including three developed for use in Zambia, and one developed in the Pacific for cross cultural research. The three Zambian tests were the hand position test (in which the child mimed the hand position of the experimenter with ten items). The Panga Manthe Test (a human figure building task in either wire plasticine after a model had been exposed for 30 seconds), and a "Chi-Chiwah" verbal test (a twenty item verbal comprehension test in the children's mother tongue).

Putnam and Kilbride (1980) have conducted a comparative study among two groups, the Songhay (Mali) and Samia (Kenya). The samples were secondary school students, and they were asked to write an essay about a person who was a good example of an "intelligent" person.

Super (1982) explored indigenous conception among the Kipsigis of Kenya. First, an ethnographic approach sought information about words and ideas that were characteristically used by women in the community to note individual differences among 3 to 10 years old children of the approximately 90 terms, the largest group referred to a child helpfulness and obedience. The second dealt with characteristics which are "*ngom*", a term which implies both "intelligence" and "responsibility". Castle's (1974) concluded African folk conception to make distinction between "social intelligence" and "technical intelligence". It challenges the extent Western notions, which defines out of place intelligence tests' components which are not primarily cognitive.

In Latin America, Klein, et al. (1973) compared the performance of ten pre-school (7-year-old) rural Guatemalan boys on a set of Western psychological tests to a set of ratings of their "intelligence" by 42 adult villagers who knew all the boys. Initial ethnographic work had identified the concept of "*listura*" as the indigenous equivalent for the English term "intelligence".

In Asia, Daphe Keats (Gill & Keats, 1980; Keats, 1982) has studied Malayam and Chinese conception (in relation to those of Australians) and Chen Braithwaite, and Huang (1982) have examined attributes of intelligent behavior among Chinese and Australian students.

Three tasks have been carried out by the Malayam and Australian students describing the term "intelligence", indicating behavior characteristics of more and less intelligent people and listing synonyms of intelligent and "non-intelligent".

A number of different searches have been taken to answer the question about intelligence and intelligence tests including straightforward definitions (e.g., Boring, 1923; Jensen, 1969; & Ferguson, 1954); factor analytic accounts (e.g., Cattell, 1971; Spearman, 1927; Thurstone, 1938; Vernon, 1971), information processing accounts (e.g., Carrol, 1981; Hunt, 1980; Snow, 1980; Pellegrino & Glaser, 1980; Sternberg, 1980, 1984), and genetic epistemological accounts (Piaget, 1972).

The bulk of contemporary intelligence research deals with intelligence in relation to the internal world of the individual (e.g., Resnick, 1976; Sternberg, 1982a, 1982b) and contextual perspective (e.g., Berry & Dasen, 1974; Berry, 1981; Charlesworth, 1976); Cole and Scribner (1983); Dewey (1957); Keating (1984); Ford and Tisak (1983); Neisser (1976, 1979); Jenkin (1974); and Baltes, Dittman-Kohli, and Dixon (1982). In dynamic relationship approach to intelligence (process-structure) goal-directed actions in the particular ecological niche (Edwards, 1925; Charlesworth, 1976; Valsiner, 1984).

Variation in performance may reflect the extent to which other people in other cultures have learned the rules that apply in our usual tasks. The developmental work about the understanding (by the younger children especially) the rules of the experimenter's game or not realizing that a particular strategy is

appropriate to a particular task. A work on this crucial aspect of intelligence evaluation done by (Harr'e & Secord, 1972; Bruner, 1972; Luria, 1976; Goodnow, 1969, 1972, 1976).

Variation in performance may be a function of changes in context. The context specified by the particular material and instructions, or by the particular definition the informant brings to the test situation. The work of Cole et al. (1971); Cole and Scribners (1974); and Bem and Funder (1978).

Variation in the definition of intelligence one aspect of everyday theory has already been of interest to several investigators: Goodnow (1976, 1979); Horton (1967); Irvine (1974); Kingsley (1977); Serpell (1974, 1979), and Wobber (1974). In sub-area nature psychology likewise Heider (1958) and others work on implicit theories. The issue of where learning should take place has been sharply presented by Bruner (1972). An example that, should teach (different beliefs) is provided by Ghuman (1975).

## **Rationale of the Study**

The need for intelligence conception and assessment, like any other psychological phenomenon, in Pakistan has been met by imposed knowledge and testing procedures which are not relevant to the content and context of this very culture. Emic (indigenous or culture specific) concepts will not be found in traditional academic psychology which is imported from the west. The specific cultural-milieu orient their own schemata's, themes, conceptions and evaluation procedures. It is strongly needed, in Pakistan, to carry out scientific inquiry to discover emic or cultural specific psychology for local requirements, expectations and aspirations. Current study attempts to discover emic or culture embedded phenomenon of intelligence by this emic or culture specific approach.

Hundreds of tests and assessment procedures work reasonably in the western world but they don't work equally well in other cultures specially nonwestern cultures like Pakistan. In Pakistan need for intelligence conception and assessment has been met by translation and adaptation of western tests which is imposed- etic technique. By passing the conceptual systems of the host culture, tests vanished their validity and reliability. Content and construct of the test and the original concept itself changes the sense of the whole phenomenon and it becomes irrelevant and non digestible to the host culture. So, to meet the local and culture specific needs, it is urgently required to study the indigenous culture with an approach of actor-oriented (emic-view) rather establishing the validity and reliability of the psychological knowledge which is now mostly irrelevant to the members of the host culture. In this way, we enhance the uses of intelligence tests as well as other psychological phenomena and give a utility and usefulness to this discipline in Pakistan.

Cross cultural psychology has major concern over an emic perspective of intelligence in different cultures, because it is a more changing and threatening conception. This is a worldwide call for indiginization, representing the (emic) perspectives of developed, developing and under developing countries. In Pakistan, every one is trying indiginization from “without”. Enrique (1979) described, as opposed to indiginization from “within”, indiginization form without as investigating particular issues, concepts and methods that are of interest of one particular culture (e.g. USA) and tested in other (e.g., the Philippines). This approach attempts to incorporate and synthesize another culture's perspective. They may not reflect the interest of the people and the culture which is being investigated. This approach is often a form of “colonization” although it is purported to be culturally sensitive.

Present study is also related to the experiential and contextual intelligence. Experiential intelligence focuses on experience of an individual who may not be so well on test but may shine quickly or creatively in the real world situation or to solve the problem. This kind of know how of every day life may be far more important than “book” knowledge in terms of simply getting along in the world. This folk or emic perspective may lead to scientific endeavor and cross indigenous or cross emic realities of all the cultures become a universal phenomenon of the psychological realities in the world.



## **Objectives of the Study**

1. To enhance the emic or subjective culture approach in research. Moreover, establish or set the tradition of culture specific or indigenous culture approach for proper direction of research in Pakistan.
2. Accumulate the need oriented, relevant to the local conditions and reliable knowledge.
3. To grasp the emic or indigenous conception of intelligence in the Punjabi culture of Pakistan
4. Give an alternative to the western or etic or other culture's definitions and descriptions.
5. To discover what components of indigenous (or emic) conception are missing from existing intelligence construct as well as from intelligence tests.
6. To find out whether indigenous conception predict societal criteria better.

## **METHOD**

## METHOD

According to the rationale and purpose of the present study, one method was evolved that emerged from the relevant researches and methods, which are generally used in this type of problem in cross-cultural psychology. Cross-cultural studies mostly discover everyday schema people hold and layman's conception or laymen's use of word, 'intelligence'. Present study is an amplification study and the investigator wanted to discover the cognitive abilities and other processes in order to understand the process of intelligence or intelligent behavior in Punjabi Culture of Pakistan.

Present study was carried out in three phases:

**Phase-I:** - It consisted of two steps.

Step-1: Conducted anthropological interviews to generate themes, statements and words for the emic concept of intelligence in everyday life.

Step-2: About 200 statements and words were scrutinized from 700 statements by the researcher. These 200 statements and words were presented to three judges who were psychologists and whose mother tongue was Punjabi. These three independent judges scrutinized these statements and finalized 30 themes or statement as related and meaningful to the accepted concept of intelligence in academic psychology.

**Phase-II:** - This phase collected a behavior manifestations of the statements and themes collected in Phase-I. These 30 statements and words were again presented to the same population. Subject responses expressed or amplified

the behavioral manifestation of these themes and words. Investigator accumulated the operational aspects of the different behaviors of intelligence.

**Phase-III:** - Finally, some specific skills and intelligence related behaviors were achieved. Emic conception of intelligence was discovered. Representative statements of these themes which is mostly meaningful or relevant or frequent, had been finalized. Emic concept was compared and contrasted with the etic concept of intelligence. Measurability is also discussed and compared in both aspects of intelligence.

## **Method**

### **First Phase**

### **Sample**

Cultural informants in behavioral manifestations approach rather than semantic replication approach (in cross-cultural psychology) is more preferred and frequently used to elicit emic concepts. In present study, to discover the emic concept of intelligence, psychologically naive informants have been chosen rather than Pakistani Psychologist or Punjabi intellectuals. Pakistani Psychologist have been trained or educated by western knowledge. It is believed that more indigenous conceptions could be obtained from psychologically naive informants

For this purpose we choose an illiterate and rural people of central Punjab are chosen where tinge of dialect of Punjabi language centrally prevails. Sample of the first phase of the study consisted of 105 participants (cultural informants). The data have been collected from three central districts of Punjab. The participants are mostly from low income group but some are from middle or upper

income group. Because in villages or towns, mostly, people are not rich or do not belong high income group (in general economic terms).

Sample included villagers and town dwellers of three central districts of Punjabi speaking areas. Participants were equally selected from three districts (Gujranwala, Sialkot, Sheikhpura). The sample has all the age groups ranging from 18 to 80 years. The sample is restricted only to the male community for the convenience of the researcher and participants because access to female participant is not (generally) sanctioned in the traditions of Punjabi Culture.

Accidental sampling a technique of probability sampling is adopted for convenience and speed because area scatters on hundreds of kilometers. For a single research it is not possible to arrange any complex strategy for far-flung areas. Key informant helped the researcher to collect data and rapport formation. Sample is restricted to village or town area. Big cities are not included due to marked urbanization. Sample distribution in three districts is as follows.

	<b>Gujranwala</b>	<b>Sialkot</b>	<b>Sheikhpura</b>	<b>Total</b>
<b>Rural</b>	25	25	25	75
<b>Town dwellers</b>	10	10	10	30
<b>Total</b>	35	35	35	105

<b>Total Subjects</b>	<b>Illiterates</b>	<b>Literate (under Matric)</b>
105	75	30

## Instrument

- (1) Simple personal information data sheet for demographical variables.

Informations regarding dwelling area and qualification helped the investigator in interpreting and analyzing the data to discovered the emic concept of intelligence

- (2) An anthropological in-depth interview containing single open-ended question.

In anthropological interview following single question has been asked or conducted in Punjabi Language.

تماڑے آلے دوالے رهتل دے وچ چنگا، بندہ (سیانا تے سمجھدار) کہہو جے کم یا عمل کرن والے  
نوں اکھیا جاندا اے۔ تے ایدالٹ یعنی مندا، بندہ (نا سمجھ تے بے وقوف) کہہو جیانا، ہندا اے۔

English Translation as under:

In your culture, who is “more liked, approved and preferred” person (with good understanding and wisdom)? State his behaviors and actions generally he holds and vise versa.

Sample mainly consisted of illiterate subjects so verbal instructions were given them to recall, enlist and express the perceptions, cognitions and behaviors of the said person. Instruction were in Punjabi language and as follows:

تماڑے کول آون تے ایس تحقیق یا پرکھ پرچول دا مقصد اے کہ پنجابی رهن سن دے بارے وچ جان کاری اتے  
معلومات لئی جاوے، جیہڑا تماڑے عالما تے دے وچ چنگا (سیانا تے سمجھدار) یا مندا (نا سمجھ تے بے وقوف)  
سمجھیا جاندا اے۔ ایہدا مقصد صرف تماڑے خیالات نوں تے جان کاری نوں جانانا اے تاکہ چنگے بندے دا  
تھیڑا کتیا جاوے۔ نالے سانوں پتہ چلے کہ عام لوکا کئی چنگے تے مندا، بندے دے کھڑے کھڑے کماں نوں اچھے  
رکھ دی اے۔ ساڈا چنگے بندے توں مطلب ایسا، بندہ اے جیہڑا تماڑے رهن سن دے وچ زیادہ پسند کیتا جان والا،  
سب توں نیا پر نیا تے ضرور اودو جیاں نالوں بہتر ہووے۔ ایس تحقیق یا پرکھ پرچول دا مقصد یونیورسٹی دے وچ مقالہ یا  
کتاب لکھن نال اے۔ ایداکے حکومت یا سیاست نال تعلق نہیں۔ ایس لئی اپنی سمجھ دے مطابق سچا تے صحیح اظہار  
کرو۔

English Translation as under

Purpose of this study and visit in your area is to know a person, who is most liked, approved and preferred (with good understanding and wisdom) in your Punjabi Culture. Research report aims at distinguishing and exploring your perception about most liked, approved and preferred person and vice versa. Investigator intended to discover the preferences in behaviors and actions you would give to a said person. The person to be meant (or understood) is the most liked, preferred and approved person of your culture (holds good understanding and wisdom). Study purport to fulfill the requirement of M. Phil thesis of Quaid-i-Azam University. Study has no relation with any political or governmental institution. So, kindly state spontaneous and true response without any hesitation.

## **Analysis of the Statements**

First Step: More than 700 statements have been collected in this phase. These statements contain different variables, words, adjectives and expressions about the emic conception of most preferred, most liked and most approved person. These statements have been covered many aspects of personality (attitudes, motivation, social, ethical and cultural) as well as intelligence. Investigator sorted out 200 statements which were near to the local conception of intelligence. Other more than 500 statements focused on the different personality folds, containing moral, social, mythical and attitudinal elements. So, these were eliminated and 200 statements, relevant to the study, sorted out for the consideration of second step of the study.

These statements were categorized on the basis of similarities and frequencies. Two hundred (200) statements, collected from the data, formulated a list of behaviors, words, and expressions in first step. These statements represent the most frequently occurring ideas or themes and central most feature to intelligence (see, the details of these 200 statement which were finalized from the 700 statements, in appendix).

Second Step: A draft of 200 statements have been handed over to three independent judges and after thorough examination they scrutinized and finalized 30 statements or words, which are more relevant to the known construct of intelligence in academic psychology. These are as follows:



**English Translation**

**Statement or word in Urdu Language.**

- |  |                                      |      |
|--|--------------------------------------|------|
| 1) Initiating and performing work with intrinsic motivated behavior either individually or collectively. | اہری                                 | (۱)  |
| 2) A man full of wisdom.   | سیا                                  | (۲)  |
| 3) Insightful & rational   | دانا                                 | (۳)  |
| 4) High in mental calculations and estimation to answer a problem or to predict a phenomenon             | گویزی                                | (۴)  |
| 5) Eligible and having capacity to perform different tasks.  | اہل یا قابل                          | (۵)  |
| 6) Having proper and positive direction towards life and daily life affairs.                             | مات والا                             | (۶)  |
| 7) High in positive thinking.  | سوچ سمجھ والا                        | (۷)  |
| 8) Educated and learned  | پڑھیا لکھیا                          | (۸)  |
| 9) Skillful  | ہنر والا                             | (۹)  |
| 10) Expert and Professionally efficient.   | تاک                                  | (۱۰) |
| 11) Holding speaking power, and expressive in public meetings.   | پار                                  | (۱۱) |
| 12) Solid and to the point talk.   | وزن دار اور نقطہ دار بات کرنے والا   | (۱۲) |
| 13) Authority holder (Acknowledged by the people)  | چوہدری صاحب اختیار                   | (۱۳) |
| 14) Clean man or clear in daily life interactions and transactions.                                      | ویساری                               | (۱۴) |
| 15) Worldly-wise man.  | جہاں دیدہ                            | (۱۵) |
| 16) Independent in thinking of daily life activities.  | اپنی سوچ کا مالک                     | (۱۶) |
| 17) Decisive participation in community meetings.  | پرے پہنچایت والا                     | (۱۷) |
| 18) Balanced in knowledge and performance.   | جتنا پڑھے، اتنا کرے                  | (۱۸) |
| 19) Best communicator or conversant to others.   | سمجھانے کی طاقت رکھنے والا           | (۱۹) |
| 20) Recognizes and conforms to others' words and suggestions.  | سمجھائے سے سمجھنے والا               | (۲۰) |
| 21) Seeks solution of problems   | مسئلہ کا حل ڈھونڈنے والا             | (۲۱) |
| 22) Understands the underlying message of issues and situations.   | بات کی تہ تک پہنچنے والا             | (۲۲) |
| 23) Carefully planned.   | منصوبہ بندی یا لگا بچھا کر چلنے والا | (۲۳) |

24) Mindful and sensible	دوش و حواس والا	(۲۴)
25) Sharp mindedness.	ذہن تیز والا	(۲۵)
26) Attends company of elders.	بزرگوں کی صحبت والا	(۲۶)
27) Evaluator and assessor of things.	پرکھنے والا	(۲۷)
28) Having balance and composed mind.	سلیجے ذہن والا	(۲۸)
29) Thinks before he speaks.	پہلے تو لے بھرے	(۲۹)
30) Goal oriented.	با مقصد	(۳۰)

### Procedure

Three central districts of Punjab (Pakistan) were selected and villages and towns were again randomly selected in respective district. First, key persons of that area were contacted to enter into the field with their cooperation and guidance. Subjects were approached at their own doorstep, by road-side or at their work places. A convenient sitting place was arranged nearby, generally in the agri-fields, street corners or nearby available drawing rooms. After developing rapport, subjects were interviewed and asked the single question. Before interview or verbal question, verbal instruction were given to them in Punjabi language which were noted in the instrument of a method of the present research. Purpose of this research and instructions were delivered verbally after a sitting nearby and informations were collected in a friendly and free atmosphere. The answers of the participant were noted by the investigator and at the end some personal information about age, name, education and residence was sought and was noted by the investigator in the personal information data sheet (see Annexure II for detail). The subjects were assured that all the information provided by them was

collected for research purpose only and there was not any governmental and political intention involved.

**Phase-II:** Second phase is concerned with the study of 30 statements finalized in phase-I. Behavior manifestation and operational definitions about these 30 statements were required because these statements represented the "actor perspective" as he elaborated or conceived these phrases about intelligence.

In Phase-II, 30 statements finalized in Phase-I, were presented to the same population. In this phase, behavioral manifestations of these 30 themes have been asked and collected. Operational or behavioral definitions and explanation of these themes, statements and labeled behaviors and cognitions was concluded. Thus, the notion or attribution or implicit conception of the intelligence in the culture of Punjabi speaking people was finalized. Sample gave represental statements to these 30 themes. These manifestations represented the operational and "actor perspective". As they themselves operate or define to these 30 themes.

### **Sample**

In Second phase sample consists of 105 participants from the same three district of Punjab (Sheikhpura, Gujranwala, and Sialkot). Their ages ranged from 16 to 70 years and they were living in the villages and towns of their respective district. The sample consisted of middle or lower income groups. More than Seventy five percent participants were illiterate and less than 25 percent had basic education up to primary or middle standard.

Accidental sampling, a technique of probability sampling, has been adopted. Every participant of village or town was accessed by chance and was included in

the sample. Not main cities of three districts were included in this sample of second phase.

Name of District	Rural	Urban	Total
Sheikhupura	25	10	35
Gujranwala	25	10	35
Sialkot	25	10	35
<b>Total</b>	<b>75</b>	<b>30</b>	<b>105</b>

Total subjects	Illiterate	Literate (under matric)
105	75	30

### Instrument

- (i) Simple personal information's data sheet. Demographic variables give clear identification of emic themes and behaviors and causal interpretation in discussion of present research.
- (ii) An anthropological interview has been conducted. A list of 30 themes have been organized and asked verbally turn-by-turn behavioral manifestation and operational explanation of each expression, statement and theme, by each subject. All the words and expressions are in the Punjabi language and 30 in numbers, which are previously mentioned in phase one final list. These thirty statements were required explanation and behavioral manifestation because these statements were the most central feature of the emic

concept of intelligence. So, the investigator required and asked explanation and operational definitions of these words and statements. The investigator through this phase collected different explanations, description, behavioral manifestation, operational acts and cognitions about these words and statements. Verbal instructions have been delivered to the participants along with an anthropological interview in which these 30 statements were verbally presented turn by turn.

Instructions were as follows:

اسیں پچھلی واری تحقیق یا جانچ پرکھ لئی تہاڈے لوکاں توں پچھیا سی کہ چنگا بندہ (سیانا تے سمجھدار) کتہو جیانا ہوندا اے۔ تے لوکاں نے بہت سارے جواب دتے سن۔ او نماں وچوں (جانچ پرکھ توں بعد) اسیں ۳۰ فقرے یا لفظاں پچھنے سن۔ ایس واری سوال اے ہے کہ تسیں ایناں لفظاں یا فقریاں دے بارے وضاحت کرو کہ "بندہ کسج دے عمل، کم کار یا سوچ رکھدا ہویگا۔ چہدی وجہ نال تسیں اونوں ایچ دانناں دتا اے" مثال دے طور تے تسیں کہندے او کہ فلان بندہ "سیانا" اے۔ اودھے کتہڑے کم، عمل یا ذہنی سوچ ہوئے گی چہدی وجہ نال تسیں اونوں سیانا بندہ آکھیا اے۔ اس طرح ایس تیٹھک دے وچ واری واری دو جے (زبانی) پیش کیتے جان والے لفظاں یا فقریاں دی وضاحت او نماں کماں، عملاں یا سوچاں دے حوالے نال کرو، چہڑے تسیں اوس بندے دے وچ ویجھدے او۔ ایس تحقیق یا پرکھ پرچول دا مقصد یونیورسٹی دے وچ مقالہ یا کتاب لکھن نال اے۔ ایدا کسے حکومت یا سیاست نال تعلق نہیں۔ ایس لئی اپنی سمجھ دے مطابق سچا تے صحیح انٹہار کرو۔

Instructions (English Translation)

The previous study inquired from people of your area, "who is more liked, approved and preferred person (with good understanding and wisdom) in your culture"? People gave answers on responding this inquiry and I selected 30 words and phrases from those responses. Now you elaborate in more detail to these words and statements. Now the questions is what are

cognitive and behavioral manifestation of these words and statements. For example you labeled or named a person as a “ Wiseman, full of wisdom”, what are the cognitions and behaviors of said person. Express your answer in behaviors, actions, and cognitions of said person. Similarly elaborate in terms of cognitions and behaviors to other words or phrases presented (orally) to your turn by turn in this sitting.

## **Procedure**

Subjects were approached at their doorstep, in a way or at work place. Time taking appointments have been arranged on request on the spot or nearby sitting arrangement. People cooperate and after establishing good rapport instructions will be given to a participant. More or less of one-hour anthropological interview have been conducted. A words and phrases have been presented orally to the subjects and write down their responses accordingly. Participants were assured that your opinion or responses are very precious and useful to explore your culture. There is no connection, of present research, with any political or Governmental institution. So state your feelings, cognitions and perception with the free will and independently. At the end of the interview I collected some personal data from the participant about age, education and residential area.

**Phase-III:** Current notion and general construct of intelligence in western psychology collected and compare and contrast with the indigenous conception of intelligence. Well-known and frequently used etic measures of intelligence have been collectively considered to compare and contrast the measurability of emic conception.

## RESULTS

## RESULTS

To explore the emic conception of intelligence, investigator was unable to grasp a notion directly because there is no alternative or substitute of “intelligence” in Punjabi culture. So, we asked a question to Punjabi speaking individuals, "who is more liked, preferred and approved person" (with good understanding and wisdom) in the culture. They responded and more than 700 hundred statements appeared in data. Out of these all 200 statements and words related to the cognition or intelligence have been sorted out. These 200 words were given to three independent judges to relate these statements with the accepted or academic notion of intelligence. Punjabi is mother tongue, of all the judges and they were well versed in their language.

**Phase-1 (First step)**

Two hundred (200) themes and words selected from the Seven Hundred Statements (700). These seven hundred statements represent the more liked, preferred and approved person of Punjabi culture. These statements includes various aspects of personality, moral standard of the society and social values regarding individuals. From these original 700 statements, 200 statements related to the study have been sorted out.

**Second step (Phase-1)**

These selected statements have been handed over to three independent judges. They finalized 30 statements, which are more relevant to the known construct of intelligence in academic Psychology.



Following are the central most features of emic concept of intelligence. Basically these are cognitive amplifiers in the conception of intelligence of Punjabi culture. These statements represent the emic perspective of intelligence in the culture of Punjab.

**1. A'UHREE**

Initiates or performs work with intrinsic motivation either individually or collectively.

**2. SIANA**

A person holds a wisdom and universality in thinking. He plays multidimensional role for the improvement of community as well as individual.

**3. DANAA**

A person with rational approach towards life affairs, holding insight and practical in his operations of mind. Applied logic and reason towards the solution of daily life affairs.

**4. G'AWAREE**

Possesses a skill of managing the social estimates on the behalf of one's experience and observation. With mental calculation he gives solution to the problems and situational complications.

**5. K'ABUL/A'AHAL**

It relates to abilities and capacities to perform all the daily life tasks and liabilities.

**6. MUT WALA**

Having a proper direction or line which is suitable to the local conditions and community overall. Good in thinking and social understanding of taboos and mores of the society

**7. SOACH SAMAGH WALA**

With a good understanding and has clear concepts of daily life.

**8. AALAM FAZAL/PARYA LAKHIA**

Having good knowledge of different fields of life, general reader and with some classified ability to manage the functions and structure of a society.

**9. HUNAR WALA**

Skillful and performs his liabilities tactfully.

**10. TAAK**

Vigilant and efficient in performing any task.

**11. BULAAR**

With a good speaking power in general, specially in community meetings.

**12. WAZAN DAR AUR NUQTA DAR BAAT KARNAY WALA**

Speaks to the point, relevant to the problem and holds weightage.

**13. CHAUDHARY/ ZAMINDAR**

Possesses authority, accepted by the people (generally landlord).

**14. VEHARI**

Fair in daily life interactions and transactions with people.

**15. JAHAN DEEDA**

Understands worldly affairs and well informed about society norms.

**16. APNEE SOUCH KA MALIK**

Independent in thinking.

**17. PARYA PUNCHAYAT WALA**

Active participant of community meetings, and plays a vital role in decision-making.

**18. JITNA PARHAY, UTNA KARAY**

There is a balance between the learning and application of gained knowledge. Knowledge with out action is nothing.

**19. SUMGHANAY KI TAQAT WALA**

Conveys his message strongly and effectively.

**20. SUMGHAANAY SAY SAMGHNAY WALA**

Conforms with socially valued and personally approved suggestion.

**21. MUSLAY KA HULL DHONDNAY WALA**

Manages a critical time and execute decisions individually or collectively, with other people. Try to solve problem.

**22. GAL BAAT KI TEH TAK JANAY WALA**

Understands the message in true or real sense and grasps the underline meaning. Holds ability to read between the lines.

**23. MUNSUBA BAND AUR AGGA-PICHA DAKHNAY WALA**

Well planned in his life. Considers all the variables before taking any step.

**24. HOASH-O-HAWAS SAY KAM LAENAY WALA**

Alert, vigilant and attentive on the different occasions of life. A mindful person.

**25. ZAHAN TAYZ HOWAY**

Sharp minded, quick in daily life business but not hasty.

**26. BUZERGAN DEE MEHFILAN WICH BAIN WALA**

Generally attends the company of wise and elderly people. Enlightened by the experiences of elderly people possessing folk wisdom.

**27. PARKHANAY WALA**

Having a good evaluation and assessment power in judging a personality.

**28. SULGHAY ZAHAN WALA**

With balanced and composed mind, good in speaking and possesses balance interaction with people.

**29. PAHLAY TAULAY, PHER BOULAY**

Thinks before expressing his views, opinion and any statement.

**30. BA-MAQSAD**

Participates in a goal directed activity and has an individual or collective positive goal. Thinks positively in order to get a purposive result.

**Phase-II**

In this phase study required a behavioral manifestations of different words and statements, which were actually a cognitive amplifier in the conception of intelligence in the Punjabi culture. It is a sub-set of adaptive and goal directive behavior. For their personal attributions, investigator collected the different manifestations of these 30 themes and statements related to the conception of intelligence in the culture of Punjabi speaking people.

The behavioral manifestations and definitions were collected by the sample. They described different acts and associated different behaviors and cognitions with each theme or statement. There was some repetition or similarity in responses. Investigator arranges the data in the following form, which is directly collected from the sample.

**1. Initiate or perform work with intrinsic motivation either individually or collectively (A'UHREE)**

- i) Who performs work by himself and willfully.

- ii) Beginner of the task.
- iii) Who starts or initiate the task.
- iv) Who is continuously indulged in his work.
- v) Attentive and concentrated to his job.
- vi) Who carries his work whole-heartedly and dedicatedly.
- vii) Who does work according to his vocation and profession as “cobbler”  
“barber” and "blacksmith" done their works efficiently.
- viii) Who leads the work.
- ix) Proposes the work, gives suggestion to perform and act firstly.
- x) Works with full interest.
- xi) Who responses in time and early in the morning.
- xii) Weak but eager to work.
- xiii) Who involves himself in work all the time.
- xiv) Always involving mind in his own business.
- xv) Experienced in different jobs and executes work properly.

## 2. A Person, full of Wisdom (SIANA)

- i) Philanthropic to others.
- ii) Distinguishes in bad and good.
- iii) Does all the things for collective survival.
- iv) Act as a wise man and accepted to the people. Moreover, he can prove  
himself beneficial to all the community.
- v) Who appreciates the consent of the people.
- vi) Who makes decision and gives valid results.
- vii) Predicts the coming consequences of any antecedents accordingly.

- viii) Having a good reason and in readily opines trouble shooting solution.
- ix) Believes in collective activities.
- x) Evaluates and assesses the situation and suggests a valid solution.
- xi) Experienced and expert in different fields of life.
- xii) Expert only in one field and guides only in this field.
- xiii) Guides the people, specially the young generation.
- xiv) Supportive to the poor.
- xv) Can execute his personal work by other People. Manage to employ other people in exercising what he wants.
- xvi) Having positive bent of mind and balanced preferences for all aspects of life.
- xvii) Strictly very religious.
- xviii) Participates in the entire social events, specially, when needed by the people.
- xix) Intelligent in his field as a good farmer, cultivator or manager of lands.
- xx) Authoritative.

**3. Having rational approach to life and insightful (DANAA)**

- i) Good understanding of social and cultural variables.
- ii) Knows all the fields of life.
- iii) Having command on knowledge.
- iv) He who decides in a critical situation.
- v) Having more age or elder man with “*beard*”.
- vi) Gives legitimate opinion on any social or personal problem.
- vii) Approved in community and social meetings.
- viii) Who executes his authority diligently.

- ix) Cooperative to others and includes will of masses in any decision.
- x) Experienced and intellectual.

**4. High in mental calculations and social estimations to answer the problem (G'AWAREE )**

- i) Having repertoire of social estimations.
- ii) Despite knowing the fact misleads the people.
- iii) Good judgement about the expected thief in any theft case.
- iv) Gives estimation to the weight of the bag of the wheat or any thing
- v) Predicts the nature of land and productivity exactly.
- vi) In "*arbitrary council*" of a village gives possible solution after comprehending the issue.
- vii) After careful calculations reaches on the possible solution in executing of inquiries about any event.
- viii) Having an ability to fix the responsibility in disturbed family affairs.
- ix) Predicts the performance of the animal (e.g. buffalo) in future.
- x) Tries to guess.

**5. Having ability and capacity (to do work) (KABUL AUR AHAL)**

- i) He who is naturally talented.
- ii) Perfect in doing specific job.
- iii) Attentive in his job.
- iv) Makes sense in the work.
- v) Hard working.
- vi) Run business with executing ability.

- vii) Social worker and gives opinion to manage “garbage” of the village.
- viii) Having capacity in “real life situations”, in "religious affairs” and in “general awareness”.
- ix) Has answers to the different socially important questions.
- x) Firm to his words.
- xi) Social and active.
- xii) Who listens the problems of others and helps them.
- xiii) Performs his duties with coordination of his subordinates and tackles his officers skillfully.

**6. Having Proper direction towards life ("MUT" WALA)**

- i) Well mannered and cultured
- ii) Guides the children considering “*after death phenomenon*”.
- iii) Guides the children by giving directions to perform his daily life duties, e.g., a businessman gives suggestions to his child to deal with the customer in a humble and cooperative way.
- iv) Says Prayer and fulfils all the religious duties.
- v) Gives good and noble suggestions to other people.
- vi) Executes the life affairs properly and clearly.
- vii) Saint and “*FAQIR*”.
- viii) possesses social and folk intelligence.
- ix) Guides people to avoid gambling rape and drinking.

**7. Good in thinking and Social understanding (SOACH SAMAGHWALA)**

- i) Having control over mind and heart.
- ii) If someone shows harshness in speaking, he responses humbly and tactfully.



- iii) Who thinks about the social welfare of the community.
- iv) Reformer and initiates to eradicate social evils.
- v) Having high thinking ability to solve a problem.
- vi) Balanced in dealings with others.
- vii) Executes his family or business affairs successfully.
- viii) Does work with full understanding.
- ix) Acts properly at a strange place and considers some precautions while behaving at a new place or area.
- x) Performs good deeds e.g., says prayer, does his business, and uses seeds which are holding best productivity.
- xi) Thinks well before speaking in social meetings.
- xii) Considers pros and cons of any business before starting it.

#### **8. Educated and Learned (PARYA-LEKHYA)**

Statements representing his theme are as follows:

- i) Despite having no formal education, he has practical knowledge of farming.
- ii) Bookish knowledge is not enough.
- iii) Has three dimensional learning: learning of things, learning of people and learning of God.
- iv) His real knowledge is Quranic knowledge.
- v) Quotes reference of books when talking to other people.
- vi) Local knowledge is necessary for him.
- vii) Knows the realities of life.
- viii) Elderly and experienced persons are more learned than youngsters.

- ix) Gets a degree or status as a scholar e.g. Professor, Doctor, Engineer or  
*'Reciter of the Quran'*
- x) Knows the daily life affairs
- xi) Having dedication to his study.

**9. With a decisive and active Participation in the social and community meetings (PARYA PANCHAYAT WALA)**

- i) Distinguishes between the right and wrong.
- ii) Makes decision according to the circumstances.
- iii) Speaks according to the situation.
- iv) Makes right decisions.
- v) He who speaks good and true to the incident.
- vi) Does justice without any considerations of any party or thought.
- vii) Has a set procedure to solve the problem.
- viii) Helps the poor and down trodden people.
- ix) Independent and bears a good character.
- x) Having a faith in God.
- xi) Able and wise man.
- xii) Does not give preference to any party.
- xiii) Does justice in meetings which deal with members of other religious groups such as Sikhs, Hindus and Christians.
- xiv) One who understands the factual position of two parties and is able to comprehend the situation.
- xv) Have a tact to manage the situation in community meeting and tries to distort the judgement by their sharpness and vocal ability.

**10. Evaluator (PARAKHNAY WALA)**

- i) One who evaluates a person or situation.
- ii) Endowed with God gifted qualities to assess the general people and their line of action.
- iii) Assesses the habit and evaluates the expression by some social cues.
- iv) Interacts with a particular person then you can assess him.
- v) Some people disguise themselves, but after interaction he can assess them.
- vi) Keen observer and knows all the types of personalities present in the society.
- vii) Has a good judgment power.
- viii) First he deals with the person to trust in him.
- ix) One who can assess to anyone by daily life business and interactions.
- x) Keen in social estimations.
- xi) Gives right opinion about a person just gone through in front of him.
- xii) Assesses the individual by his expression and his actions.
- xiii) A Good predictor of any person for his future behavior.
- xiv) Understands and judges others very well.
- xv) Find the solution of theft case.

**11. Conform with Socially valued and Personally approved suggestions (SUMJHAAY SAY SAMJHANAY WALA)**

- i) Acts upon the suggestion.
- ii) May agreed upon any statement.
- iii) If someone gives good opinion or suggestion then he takes it as compulsory to act upon.
- iv) Parents' and teachers' opinion is acknowledged by him.

- v) Cooperative in counseling and agrees upon it.
- vi) One who differentiates in good and bad matter of daily routine and understands it well.
- vii) Adopts any good thing by seeing or listening.
- viii) If someone tells him something, he agrees upon it.
- ix) If someone foolishly insisting on his wrong doings, a wise person withdraws his rights.
- x) One who obeys the right thing becomes a good child.

**12. Expressive and holding speaking power (BULAAR)**

- i) He who speaks in the social and community meetings.
- ii) Stresses in loud voice but has no weight in his words.
- iii) Decides well and gives answers to unsolved questions.
- v) Talks without sensible meaning.
- vi) Stresses his own version.
- vii) Has good manners in speaking.
- viii) Has a good thinking and understanding ability.
- ix) Keeps on talking without break.
- x) Speaks like "*Chaudhry*".
- xi) Eloquent.

**13. Independent in Thinking (APNEY SOACH KA MALIK)**

- i) Does his work correctly with his own thinking.
- ii) Never recognizes any suggestion and stresses in his own version.
- iii) Plays his social role without any consultation.

- iv) Has his own thinking and does not accept any opinion and suggestion.
- v) Acts like a “*Chaudhry*”
- vi) Does not have any prejudice.
- vii)

**14. Expression is to the point and carry weight**  
(NUQTA DAR AUR WAZAN DAR BAT KARNAY WALA)

- i) Delivers solid conversation
- ii) Avoids to speak in sub-standard way.
- iii) Gives exact statement without estimation.
- iv) Accepted by the people.
- v) Always precise and to the point in his speaking.
- vi) Not talkative but talks only according to the problem.
- vii) Effective and relevant talk.
- viii) Comprehensive and follows the “*Quran*” and “*Sunnah*”.
- ix) Courageous in saying something.
- x) Says without any fear.
- xi) Executes his words.
- xi) Says with certainty and whole heartedly.
- xii) Long lived, real, solid, true and correct talk.
- xiii) Pin points an actual fact during the proceeding of court.
- xiv) Expresses symbolically, not comprehensible by every one.
- xv) To raise jokes or caviler.

**15. With Balance and composed mind** (SULGHAY ZEHAN WALA)

- i) Speaks properly and rarely.

- ii) Not talkative like fools.
- iii) Acts in a balanced way with judgment and considers in and out.
- iv) Learned and firm to his words.
- v) Acts according to his line and is reserved in actions.
- vi) Believes in good works and deeds.
- vii) Delivers pleasant and balanced speech.
- viii) Humble and Noble person, does not participate in irrelevant activities.
- ix) Conforms to society.
- x) Cooperates with all the people and shares the problem.

**16. Mindful (HOASH-O-HAWAS WALA)**

- i) Works with senses.
- ii) Generally controls the anger in quarrels.
- iii) Mind-full in business
- iv) Thinks before uttering any words.
- v) Not lazy, but alert.
- vi) Active and smart.
- vii) Good in Social perception, manage the quarreling situation.
- viii) Cool, Calm and experienced person.
- ix) Concentrates on job properly.
- x) Possesses healthy and fresh mind.
- xi) A man with good understanding and utilizes sense.
- xii) Well versed and vigilant.

**17. A Carefully Planned**  
(MUNSOOBA BUND AND AGGA PICHA DEIKHANAY WALA)

- i) Plans the daily tasks and engagements.
- ii) Farmer's arrangements for better cultivation of crops.
- iii) Works with proper pace and schedule.
- iv) According to the futuristic trends of the people, arranges future projects accordingly.
- v) Uses mind and does business in different ways.
- vi) Starts work with consideration of profit and loss.
- vii) Executes any project according to his capacity.
- viii) Manage the future of his children
- ix) Educated and calculated.
- x) Speaks carefully.
- xi) Runs business according to the latest trends of market.
- xii) Endowed with thinking ability.

**18. Sharp mindedness** (TAIZ ZEHAN WALA)

- i) Picks the point or message in communication.
- ii) Educated and alert person.
- iii) Applies mind in business and calculates the loss and profit.
- iv) Vigilant and clever person.
- v) Clever and sensible.
- vi) Not absent-minded.
- vii) Sharp in worldly affairs, work like computer.
- viii) Can communicate his version and opinion to others.

- ix) Understands the conversation sharply.
- x) No “complexes” in mind, works smoothly.

**19. Read between the lines message  
(BAT KI TEH TAK PUHANCHNAY WALA)**

- i) Understands the secrets, working behind any thing.
- ii) Answers ‘why’, ‘what’ and ‘how’ in responding to any talk.
- iii) Well aware of social affairs and country's current affairs to reach solutions of the problems faced by the country.
- iv) Reads the situation with power of mind.
- v) Distinguishes or differentiates between good and bad.
- vi) Understands conversation from start to end.
- vii) Has ability to assess a person and his behaviors.
- viii) Scans a matter and concludes its merits and demerits.
- ix) Works on problem till its end.
- x) Fixes responsibility in proceedings of any case.
- x) Fixes a charge on accused person in criminal investigation.

**20. Try to solve a Problem (MASLEY KA HALL DHONDANAY WALA)**

- i) Chairman or member of Union Council, “*Numberdar*” and socially important men decide collectively to any problem which was presented to them in the village.
- ii) Pin points the person who has a specific ability to solve a specific problem. Every layman in the Punjabi culture does it.
- iii) Manages the loss



- iv) “*CHAUDHARY*” and important personalities solve the problem in a positive way.
- v) Controls a problem with past experiences
- vi) Solves the problem with rational approach, experiences and collective efforts.
- vii) Finds the alternatives and gives a solution with intellect.
- viii) In “*Parya Panchayat*” solves an issue in accepted way.
- ix) Elderly people do it.
- x) Proceeds according to the norms and values of the society.
- xi) Controls a problem gradually with previous experiences.

**21. Skillful (HUNAR WALA)**

- i) Does something as a technique and easily.
- ii) Develops his own job.
- iii) Manages the social situation for his own sake.
- iv) For example, Cobbler, Barber, Butcher and harvester.
- v) Has a skill to adjust in a profession or society.
- vi) Has a good knowledge of everything.
- vii) Works with a menial work of low standards.
- viii) Can run his business successfully.
- ix) Up brings his family by it.
- x) Possesses a specific ability.

**22. Vigilant and efficient in executing any work and Profession (TAAK)**

- i) Completes his task with full responsibility.

- ii) Works skillfully, and knows how to execute his work.
- iii) Master or technician of any skill.
- iv) Understands the task and knows how to cultivate or produce his crop.
- v) Clever and experienced in many fields and manipulates the situation.
- vi) "Work is work" and hardworking is his prime interest.
- vii) Knows all the trades and acts like a skillful person.
- viii) Does job efficiently and possesses ability to imitate any work or event.
- ix) Concentrate on his work fully.
- x) Cultivates by knowing all the minute details of cultivation.
- xi) Performs any task with mastery.

**23. Authority holder (CHAUDHARY)**

- i) Successful.
- ii) Whose decision are obeyed by the people.
- iii) Religious and having a good character.
- iv) Having a social weight and mobility (horizontal and vertical).
- v) Financially independence.
- vi) Recognized by his the people after continuous efforts.
- vii) "SIANA" and having a social intelligence along with business and money.
- viii) Strong and executes his orders more than religious people.
- ix) People regard as head of the village or area.
- x) No decision of social importance can be made without this very person.

**24. Clean man or fair in daily life interaction and transactions (VEHARI)**

- i) Shows fair dealing with others.
- ii) Transparent in business affairs with others.

- iii) Executes social obligations in a responsible way.
- iv) Truthful in his words.
- v) Constant in fair dealing for a long time and generally approved.
- vi) Reacts positively to others and cooperate with good intentions.
- vii) Responsible and firm to his commitment.
- viii) People have an opinion about this type of person as “checked and found correct” like the quality check of products.
- ix) Gives importance to others' rights.

**25. Knowing Inside out of any issue (JAHAN DEEDA)**

Knows the implicit phenomenon of their society in detail.

- i) Understands the whole phenomenon of life and living area.
- ii) Participates in community affairs and has a weight and worth, everywhere in society.
- iii) Behaves positively to all on behalf of his social judgement and understanding.
- iv) Sincere to every body.
- v) Not quarrelsome and foolish.
- vi) Takes part in all types of companies.
- vii) Knows all the social skills and goes everywhere in the society.
- viii) Considers everyone but votes for one.

**26. Balance in knowledge and performance (JITNA PARHAY, UTNA KARAY)**

- i) Acts with knowledge.

- ii) Understands his job and exercises his mental power.
- iii) Merely bookish knowledge has no importance in his eyes.
- iv) Not only in performance but also in execution deploys exact knowledge.
- v) Education is virtue but some exploit through it.
- vi) Education gives better routine to his daily life.
- vii) Balanced in the use of mind and body.

**27. Command on communication**  
(SUMJHANAY KI TAQAT RAKHNAY WALA)

- i) Has manners and etiquettes to speak.
- ii) Delivers an attractive speech with arguments.
- iii) Has mastery over delivering his own version.
- iv) Guides a person in a way that he is satisfied.
- v) “Social Power” for an individual is important but not words.
- vi) People understand the speech of authoritative person.
- vii) Has ability to teach and guide.
- viii) Gives suggestion to be away from evil and bad deeds.

**28. Attend wise elder’s Company** (BUZARGUIN KI SUHBAT WALA)

- i) Old or elderly people tell a correct things.
- ii) “*Pir*” or “*Wali*” portray both good and bad effects on masses.
- iii) In the company of elder persons you will find the true, real and experienced things.
- iv) In the elderly company, communication always centers rationale and intellect.

- v) A man who possesses good morality and performs his duties in a responsible way.
- vi) Good company for better ends.
- vii) Some golden words can be gained from this company.
- viii) Always centers good and virtuous affairs.
- ix) Possesses traditional and conventional values.
- x) Elderly company may be good or bad.

**29. Think Before Speech (PEHLAY TOALAY, PHIR BOALAY)**

- i) Gives a solid statement
- ii) Considers all the implications of the said words and reviews it before making any statement..
- iii) Considers all the variables to produce proper meaning in spoken words.
- iv) First decides at home, then speaks publically.
- v) Always speaks the truth.
- vi) First considers the value of the speech then starts.
- vii) Knows the utility or applications of the speech.
- viii) First estimates the validity and reliability of the talk then imparts it.
- ix) Delivers a correct and balanced speech.
- x) Sensible person, does not speaks foolishly.

**30. Goal Directed (BA-MUQSAD)**

- i) Does not give more details but speaks only to the point.
- ii) Always acts positively.
- iii) Does not beat about the bush.

- iv) Community centered goal is appreciated by him.
- v) To complete own vested interest is not fair.
- vi) To enhance the agricultural productivity and limits the prices of costs.
- vii) A man who holds a faith in God.
- viii) Minds in his own work and does no interference in others targets.
- ix) Successful in this world and life hereafter.

## Phase-III

### Western or Etic Measures of Intelligence

Following are the etic measures of intelligence based on Western concept and construct of intelligence. These verbal or non-verbal tests are generally used to assess the level of intelligence in children and adults in their societies. In Pakistan these tests are also used and labeled an individual as a less or more intelligent. To compare and contrast these test with local (emic) notion of intelligence I collected the description and content of these etic measures of intelligence which is as under:

1. Raven Progressive Matrices (RPM)
2. Wechsler Adult Intelligence Scale (WAIS)
3. McCarthy Scales of Children Abilities
4. Stanford-Binet Intelligence Scale

#### *1. Raven Progressive Matrices*

It is non-verbal test to measure higher intellectual capacity on progressive levels of ability. It is widely used test and treated as culture-fair test.

Main features and content are as follows:

- 1) It contains geometrical figures and arithmetical series solved in limited time.
- 2) Assess a person ability to form comparison between figures and develop logical method of reasoning.
- 3) Independent to educational attainment clarity of a person's thought measure.

- 4) Assess an observation of an individual to the logical relations in complex figures.
- 5) It measured intellectual efficiency in three categories: dull – average – bright.

## 2. *Wechsler Adult Intelligence Scale (WAIS)*

It is verbal test of intelligence and frequently used all over the world with adaptations and translations. WAIS is consist of eleven sub-tests which are distributed into verbal and performance categories of intelligence. These are following:

### **Verbal Tests**

Information, Comprehension

Arithmetic, Similarities

Digit Span, Vocabulary

### **Performance Tests**

Digit Symbol, Picture Completion

Block Design, Picture Arrangement

Object Assembly

### ***Item Comparison***

Item description of each sub-test as follows:

1. ***Information:*** (i) What are the colors of US Flag? (ii) What is the shape of the ball? (iii) What is thermometer? (iv) Where is Brazil? (v) How far is it from Paris to New York? (v) Who wrote Fourt, Kohen?

2. ***Comprehension:*** (i) Why do we wash clothes? (ii) Why should we keep away bad company? (iii) Why our child labor laws needed? (iv) Why should people pay taxes? (v) What does, this saying mean? 'Strike while the iron is hot'.



3. **Arithmetic:** (i) If you have three books and give one away, how many do you have left? (ii) How much is your dollar and five dollars? (iii) How many hours will it take a man to walk 24 miles at the ratio of three miles an hour? (iv) The price of cannell peas is two cans for 31 cents. What is the price of are dozen can?

4. **Similarities:** (i) Orange-Banana (ii) Coat-Dress (iii) Axe-sau (iv) Dog-Lion (v) North-West.

Points: Orange-Banana = 2 points — Fruits, 1 point — Food, 0 point — Round, same shape, contain colors.

5. **Digit Span:** (i) Digit forward, (ii) Digit backward.

1. I am going to say some numbers listen carefully, and when I am through, say them right after me?

Trial I: 5-8-2, 6-4-3-9, 4-2-7-3-1, 2-7-5-8-6-2-5-8-4.

2. Now I am going to say some more numbers but this time when I stop, I want you to say them back.

Trial I: 2-4, 6-2-9, 3-2-7-9-, 9-4-3-7-2-5-8.

6. **Vocabulary:** I want you to tell me the meaning of some words. What does... mean?

1 - Bed 2 - Ship 3 - Penny 4 - Winter 5 - Repair 6 - Breakfast 7 - Fabric  
8 - Slice 9 - Assemble 10 - Conceal 11 - Enormous 12 - Hasten 13 - Sentence etc.

7. **Digit Symbol:** Look at these boxes. Notice that each has a number in the upper part and mark in the lower part. Every number has a different mark. Now look at the boxes having number at upper boxes but no mark at beneath boxes. You are to put in each of these squares the mark that should go there as example give till 8 then start a test.

8. **Picture Completion:** I am going to show you some pictures in which there is some important parts missing. Look at each picture and tell me what is missing.

e.g. (i) You see, the door knob is missing.

(ii) The wheel is missing.

Picture	Missing Parts
Girl	Nose
Car	Handles
Man	Fingers
Sun	Shadow etc.

9. **Block Design:**

1. Blocks having different colors and produce model like arrangement.

2. Arrange the blocks together to make them look like this picture.

10. **Picture Arrangements:** (given 3 cards)

These pictures tell a story about a bird building a nest, but they are in the wrong order. Put them in the right order so they will tell a story.

11. **Object Assembly:** Arrange the pieces of each item as indicated in the diagram.

(i) Manikin and profile - 120 seconds

(ii) Hand and Elephant - 180 seconds.

4. **McCarthy Scales of Children's Abilities**

= General intellectual level of children as well as their strengths and weakness in important abilities.

= Systematic observation of variety of cognitive and motor behavior.

- = Six Scales: i. Verbal, ii. Perceptual performance, iii. Quantitative, iv. General cognitive, v. Memory, and vi. Motor.
- = Content choices based on author's extension teaching and clinical experiences in developmental psychology.

**1. Verbal Scale:** Children ability to express himself verbally.

- i. Pictorial memory — Child recalls names of objects pictured on card.
- ii. Word knowledge — He identifies common objects and define words.
- iii. Verbal memory — He repeats word series and sentences, retells a story read by examiner.
- iv. Verbal Fluency — Name articles in given category.
- v. Opposite analysis — The sun is hot and ice is...

**2. Perceptual-performance Scale:** Assess imitation, logical classification and visual organization.

- i. Block Building — Child copies block structure build by examiner.
- ii. Puzzle solving — He assembles cut-up pictures of common food and animals.
- iii. Tapping sequence — Copies sequence of notes on xylophone.
- iv. Right-left orientation — Demonstrate knowledge of right and left.
- v. Draw-a-Design — Draw a picture of a child.
- vi. Draw-a-Child — Draw a picture of a child.

- vii. Conceptual grouping — He classify blocks on the basis of size, color and shape.

3. **Quantitative Scale:** Child facility with numbers and understanding of quantitative words.

- i. Number Questions — Child copies block structure build by examiner.
- ii. Numerical Memory — Repeat the digits series presented to him.
- iii. Counting and sorting — Asked to count and to sort block into equal groups.

4. **Memory Scale:** Short-term memory assessment.

- i. Pictorial memory — Recalls names of objects in picture.
- ii. Tapping sequence — Copies notes on xylophone.
- iii. Verbal memory — Retell the story or words.
- iv. Numerical memory — Repeat series of digits.

5. **Motor Scale:** Child's coordination as he performs a variety of gross and fine motor tasks.

- i. Leg co-ordination — Walking backward or standing on one foot, etc.
- ii. Arm co-ordination — He bounces a rubber ball and catches and through.
- iii. Imitative action — He copies simple movements as folding one's hand and looking through a tube.
- iv. Draw-a-Design — Geometrical design.
- v. Draw-a-Child — Picture of a self.

6. *General Cognitive Scale: (GCI) (Index)*

Verbal + Perceptual Performance + Quantitative.

All the 15 scale expect leg coordination, arm coordination and imitative action.

General cognitive scale represents the child ability to integrates his accumulated learnings and adopt them to the tasks of MSCA.

1. Block Building — Make a tower, chair etc. of blocks
2. Puzzle solving — Arrange two or six pieces of animal picture.
3. Pictorial Memory — Picture description with detail (button, fork, chip, etc.).
4. Word knowledge — Picture vocabulary + oral vocabulary (Tower, coat, tool, loyal, mouth).
5. Number Questions — How many ears do you have? How many hands do you have?
6. Tapping sequence — Play same tune on xylophone.
7. Verbal memory — Say words and sentences as I am saying + story.
8. Right-left orientation — Show me your right hand? Which is your left ear?
9. Draw-a-Design — Drawing booklet: copy it and draw-a-similar design.
10. Draw-a-Child — Drawing booklet: Boy or girl picture — Draw and copy.
11. Numerical memory — Forward series + backward series.

12. Verbal fluency — Things to eat, animals, things of wear, things to ride.
13. Counting and sorting — i. How many blocks in this card, ii. Show me the second block from this end.
14. Opposite analogies — Up to (down), big to , Running is fast and walking is , cotton is soft and rock is ?
15. Conceptual grouping — Set of 12 blocks — 6 squares and 6 circles, each shape provides in 3 colors and 3 sizes per color.
- i. Show me the block of little one.
- ii. Find the square one — show me the round one.

#### 4. *Stanford Binet Intelligence Scale (IV Edition)*

An instrument for measuring cognitive abilities that provide an analysis of the pattern as well as the overall level of an individual's cognitive development (Ages 2 - adults).

1. *Verbal Reasoning*: i. Vocabulary, ii. Comprehension, iii. Absurdities, iv. Verbal relations.

2. *Abstract/Visual Reasoning*: i. Pattern analysis, ii. Copying, iii. Matrices, iv. Paper folding and cutting.

3. *Short-term Memory*: i. Bead memory, ii. Memory for sentences, iii. Memory for digits, iv. Memory for objects.

Following are the test items overall included in it to measure intelligence.

- |  |                                     |
|--|-------------------------------------|
| i) Picture memories.                   | x) Picture absurdities-I            |
| ii) Comparison of balls.               | xi) Memory for stories.             |
| iii) Patience (pictures)               | xii) Memory for design.             |
| iv) Discrimination of animal pictures. | xiii) Block counting.               |
| v) Response to pictures.               | xiv) Picture absurdities-II.        |
| vi) Pictorial identification.          | xv) Dissected sentences.            |
| vii) Discrimination of forms.          | xvi) Reasoning— I-II.               |
| viii) Aesthetic comparison.            | xvii) Arithmetical reasoning.       |
| ix) Multiple pictures.                 | xviii) Orientation (Direction III). |

## **DISCUSSION**



## DISCUSSION

The purpose of this study is to discover a local perception (emic perspective) of intelligence in the Punjabi culture of Pakistan. The present efforts is to identify an emic view or perspective of intelligence. Study method is qualitative in nature and it explored the emic perspective of intelligence by applying conceptually simple method of an anthropological interview. Direct and subjective culture approach is adopted. It is generally applied by cross-cultural psychologists to explore their emic phenomenons in their respective cultures.

According to the emic strategy of research, first stage is simply to identify the emic concept of intelligence. Present research carried out first step of an emic research and next step would be to incorporate the emic view into assessment procedures. Thirdly, this emic measure of conception will be submitted to construct validation studies. Finally, to find out the universality of all the emic conceptions of all the cultures of the world will be related to search for desired -etics conceptions, an empirical convergence of all culture conceptions of intelligence. Present study initially started with a first and single step by identifying the emic conception of intelligence. Now, in future, researchers can execute other steps accordingly to achieve the target of indeginization from "within". In this approach all the psychological phenomenons will be studied and explored according to the need and aspiration of Pakistani society.

To identify the emic concept of intelligence of Punjabi culture, sample have been taken from three central districts of Punjabi speaking people in Punjab province of Pakistan. Nearly half part of the undivided Punjab is in Indian territory and cannot be included in a sample due to the limited time and resources.

The territory of upper Punjab (Northern Punjab) and lower Punjab (Southern Punjab) were also exempted from the study due to the change in dialect and other cultural and geographical variables. These are sub-categories of the culture of Punjab and holds "potohari" and "Siraiki" dialects of Punjabi language. Potohari has impacts of "Pahari" language and Siraiki have influence of "Sindhi language". As Grierson, (1928) stated in linguistic survey of Pakistan, these are not pure Punjabi languages. These sub-languages require more study. The sample consists of 210 subjects which are mostly illiterate. Sample mainly belongs to rural (or agricultural) area and small town dwellers locating in the agricultural plains of Punjab. Sample only consist of male informants because approach to female subjects was impossible due to cultural constraints. Female researcher or investigator can carry this research on female population and result can be compared for evaluation. Other studies also required, on larger population, changing parameters of the universe and by different research methods to accumulate a complete knowledge of the local perspective of intelligence in the culture of Punjab (Pakistan). There are other research options, like the content analysis of Punjabi proverbs, words, content analysis of Punjabi literature, study on intellectuals of Punjab and preparation of human area files. Another study can be conducted on the regards of mystic poets and sages of Punjabi language. There are many models, paradigms prevailing to assess the intelligence and for theory construction of specific culture in cross-cultural psychology. Present research carries out initial work to identified the emic conception of intelligence recommended by the emic-research strategy.

First phase of the study aimed at collection of different intelligence related themes and behavioral statements encompass the notion of emic intelligence in the Punjabi culture of Pakistan. Second phase of the study supported to explore the

behavioral manifestation of these themes and statements according to the perception of Punjabi speaking population. In first phase, 30 themes and statements have been finalized in two steps. These 30 themes or statements represented different cultures embedded behaviors of intelligence. In second phase of the study, the behavioral manifestations of each of the themes or statements have been explored and recorded. In second phase, 105 subjects re-participated from the same population and elaborated the each theme turn by turn in anthropological interview. There were other statements representing each theme as they perceived or attributed in their respective culture. Actually it was an operational aspect of that specific intelligent behavior or conception. In this way study, accumulated the operational definitions of these themes or statement representing the intelligence or intelligent behavior in the culture of Punjab.

Present study highlighted the very specific cognitions and behaviors occurred in the cultural environment of Punjab. So, it was cognitive amplification study for this very culture of Punjab. Investigator discovered cognitive conceptions and behaviors which were significant and embedded in specific ecological-niche of the culture.

Considering all these themes or statements, it is obvious that emic concept is not unitary in nature but embedded in different behaviors and cognitions in a specific context and content of a Punjabi culture. Different social, moral, affective, motivational, cognitive and spiritual aspects are included in it. It is a collectivist and oriental culture and all the psychological phenomenon embedded in it. It is ecologically demanded and based on to the environmental factors. In Punjabi culture, person-environment relationship or interaction carried much importance and any adaptive and goal-directed behavior assessed through the laws emerged by this very natural relationship. For example, a theme most commonly

prevail was "SIANA". "SIANA" was near to the word of intelligence in Punjabi culture. "SIANA" represent a person who holds wisdom and collectivity in orientation. He poses an insight towards any problems of daily life and comprehension about the whole social or cultural phenomenon. In operational definition "SIANA" was a person who is collective and philanthropic in orientation, applies all measures for survival of an individual and society, has mastery over problem solving and giving solution to all social or personal problems. He comprehends all the environmental and ecological variables and guides people according to the requirements of ecological phenomenal needs. Wisdom is major character of a this type of a person. It covers intellectual functioning, affective performance and attachment with other people and comprehension of holistic theory of the society and even universe. A single theme has a complex and multiple aspects of its manifestation. It cannot be segregated from the specific culture context or niche of the culture. It covers variety of content and cannot be assessed by single item like western measures. It covers general and social cognition. It is ethical and moral in one aspect and affective and motivational in other way, and ollectivistic and pluralistic in nature.

"DANA" is also a most frequent theme near to intelligence or intelligent person. "DANA" refers to a person who poses a rational approach towards life affairs; a person who holds practical insight and theoretical knowledge to manage a individualistic and collectivistic problems. He applied logic and reason to solve daily life affairs. The concept connotes (or denotes) to a person with reason and valid thinking. "DANA" is an experienced man holding full awareness about personal and family problems and give suggestion to get rid of any problem. The quality is related to the collective and social aspect of the society as well as healthy upbringing of an individual, who manages personal preferences and

interests. Ethical standards are strictly observed and performance is given to the normal and social values. So all the phenomenon is rooted in it. This theme is related to the reasoning and perceptual depth of experience. It is not abstract construct but sub-set of an adaptive behavior in the culture of Punjab. It covers comprehension also.

Other findings about emic conception of intelligence also elaborate or express the local and specific aspect of an intelligence in the culture of Punjab.

"AUHREE", another prevalent theme, means a person who holds ability to initiate or perform work with intrinsic motivation either individually or collectively. In agrarian culture, active and smart person who performs personal and group work by initiative and will is "AUHREE". He leads and knows the technicalities of the task. He who is fond of working skillfully. He is one who lead the execution of programme in a proper way. In this theme, a practical performance is dominant with mastery in science and art of the specific tasks. Attention, concentration and dedication are essential element of this theme or statement. It is a social and collective in content and construct. It has inherent inclination towards the perceptual performance. It covers motivational aspect also.

"GAWAIREE" is also associated with intelligent person. "GAWAREE" means an individual holding a skill to manage social estimates on behalf of his experience and observation. It is a social intelligence and the said person uses different techniques and parameters to reach the solution of the problems. It is generally associated with theft or cattle lifting; to asses a whole incident and reach accused or criminal who is responsible for this. "GAWAIR" is also a estimation of a weight of a bag of wheat or any thing. "GAWAIR" also refers to estimate the fertility of land for future crops. This ability is highlighted by the people of Punjabi culture because administration and judiciary belongs to a colonial period

and these institutions are not working according to the local systems of the indigenous people. They parallelly made decisions and this ability pay much. Like this, other institutions are not working systematically, so the person's prediction and estimation is desired and carries weight. Another cause of sustainability of this ability due to the simple and easy going life or agricultural based affairs needs no instrumentation and equipments to execute this. It is sustaining due to non cast of services provided by anyone. On the other side this quality includes a clear perception, social understanding of situation and prediction power. It is according to the norms and standards of society and is a social cognition.

It is obvious from analysis of data that emic perspective of intelligence contains culture specific variables. Mechanism of language and belief and value systems pay much for the conception of intelligence or intelligent behavior. These cognition functions were present in the culture of Punjabi speaking people of Pakistan. It is an other discussion weather these were significant or not, to the new vision of intelligence measurement. It is required, first, to decide what is to be measured. The study reveal the description of emotive and socially-sanctioned valued skills carry positive affect, and those with low status have negative connotations. Such feelings are now thought to be part of the mechanism for memory, with positive affect signaling, even probably triggering, protein synthesis for long-term acquisition. Themes and statements, finalized in first phase of the study which identified the emic conception of intelligence, represent effective-social reinforcement vector habitual information processing. Cultures decide who will learn what and for how long. It is a product of specific environmental phenomenon. This position is also questioned by Ferguson (1954):

The more or less stable attributes of behavior, commonly referred to as abilities, represent performance at crude limits of learning, and such limits are

determined by the biological propensities of the individual and by cultural factors which prescribe what shall be learned at what age. Therefore, questions about the role of cultural factors in human ability are essentially questions about the relationship between learning and human ability.

Theme, statement and words representing the local conception of intelligence also have other aspects and dimensions to explain the phenomenon of intelligent behavior in the culture of Punjab. Like most Asian cultures, Punjabi culture is a collectivistic in origin. It is also centered to the environment. So the emic conception deeply rooted in these phenomena. Other demographic genetic, developmental, education level, urbanization, family size, cognitive styles and child rearing practices also needed attention to elaborate the cultural embedded conception of intelligence. Traditional transitional and agri-based culture also have a specific structure to enhance any ability or high mental activity. Ethnographic studies also reveal the culture context as well as stressing for universality of these concepts.

Other models, paradigms and theory building procedures have been elaborated by cross-cultural psychologists. These frameworks are in search of tools of interrogation of data and universality or objectivity in ability conception and measurement. There are many barriers to progress in this field. These are nonobservances of construct validation of frame works and methods; instrument variations whose consequences are unexplained; ignorance of methods of task refinement.

The study identifies that cognitions and behaviors which were desired and attributed as high mental activities in specific context of Punjabi culture. These activities are product of group environmental treatments and other ecological settings. It is clear from the findings of the present study that intelligence will be



different across cultures (and across context within cultures) in so far as, there are differences in the kinds of problems that different cultural milieu pose their initiates. In this sense, we must adopt the position of cultural relativists, such as Berry (1971) and Boas (1911), that no universal notion of a single, general ability, called intelligence, can be abstracted from the behavior of people whose experiences in the world have systematically been different from birth in response to different life predicaments handed down to them in their eco-cultural niche. In this sense, all cultures have to be considered equally effective in producing ways of dealing with the problems of survival of our species under unique pattern of constraint. Unless and until it is demonstrated that there is a common mechanism underlying all schema formation, so that it is possible to claim that some kinds of experience positively influence that single process of formation differentially, no other position is feasible. One drawback of context-specific culture-cognition theory is that it fails to consider the fact that cultures interact and compete each other.

Present study also have a third phase. It simply compare and contrasts the emic conception with etic measures of western construct of intelligence. It is not wholly feasible at this stage because present study carries only folk conceptions of abilities or intelligent behaviors and on the other side scientific or most sophisticated tests are present. Local or emic concepts can be comparable with western folk concepts, an attempt is made to differentiate between these two identities of different origins.

Following are the four scales (categories or factors taken from different tests) to compare and contrast the results. These categories are collectively taken from western etic measures naming Wechsler Adult Intelligence Scale, Mcarthy Scales of Children Abilities and Stanford-Binet Intelligence Scale (For detail see



IIIrd phase of finding in the results of present study). On the other side, emic themes and behaviors have been taken from the emic conception of intelligence identified by the investigator in present study., Comparison is as follows.

Etic Criterion	Emic Criterion
<p><b>1. Verbal Scale:</b> (Ability to express himself verbally).</p> <p>(i) Pictorial Memory: Picture description with detail (button, Fork, Chip, etc.).</p> <p>(ii) Word knowledge: Vocabulary (tower, coat, tool, loyal mouth).</p> <p>(iii) Verbal Memory: Repeat series of words or retells a study.</p> <p>(iv) Verbal fluency: Name articles in given category animals or garments.</p> <p>(v) Opposite analysis: The sun is hot and ice is...</p>	<p><b>1. Expression related to verbal ability.</b></p> <p>(i) Bular): expressive speaking.</p> <p>(ii) Expression is to the: Point carries weight.</p> <p>(iii) Bookish knowledge not sufficient.</p> <p>(iv) Verbal power to communicate.</p> <p>(v) Mastery on delivering his own version.</p> <p>(vi) Considers all the variables to produce proper meaning in spoken words.</p> <p>(vii) Give correct and balance words in speech.</p>
<p><b>(2) Perceptual Performance Scale:</b> (Assess), imitation, logical classification and visual organization).</p> <p><b>Block Building:</b> Make a tower, chair, etc. of blocks.</p> <p><b>Puzzle Solving:</b> Arrange two or six pieces of animal picture.</p> <p><b>Tapping Sequence:</b> Play same tune on xylophone.</p> <p><b>Right-left Orientation:</b> Show me your left hand? Which is your left ear.</p> <p><b>Draw-a-Design or Child:</b> Copy a design or picture of boy and girl.</p> <p><b>Conceptual Groping:</b> He classify blocks on the basis of size, color and shape.</p>	<p><b>2. Related to Perceptual Performance:</b> (To assess, limitation, logical classification and visual organization).</p> <p>(i) Good in social judgement.</p> <p>(ii) Imitate well to any work and do job efficiently.</p> <p>(iii) Assesses the person and situation.</p> <p>(iv) Applies mind and calculate the loss and profit.</p> <p>(v) Good in social perception.</p> <p>(vi) Acts in balance way with judgement considering all in and outs.</p> <p>(vii) Distinguishes in good or bad.</p> <p>(viii) Estimate and predict a valid result after careful education in any social and personal matter.</p>

**3. Quantitative, memory and motor ability related statements**

- i. (a) **Numerical Memory:** Repeat a digit series presented to him.  
(b) **Counting and Sorting:** Asked to count and to sort blocks in groups.
- ii. (a) **Pictorial Memory:** Recalls name of objects in a picture.  
(b) **Verbal memory:** Retell the story or words.
- iii. (a) **Leg and arm coordination:** Walk backward and catches a ball.  
(b) **Imitate action or design:** Copies simple movements or design.

**4. General Cognitive Scale: (Verbal Scale + Perceptual Performance Scale + Quantitative Scale)**

- (i) Ability to express verbally and more informative.
- (ii) Assess, initiation, logical classification and visual organization.
- (iii) Child facility with numbers and quantification.
- (iv) Short-term memory.
- (v) Coordination as he performs a variety of gross and fine motor tasks.
- (vi) Verbal reasoning.

**3. Quantitative, memory and motor ability related statements**

- (i) (a) Good in business affairs.  
(b) Calculate the loss and profit in business.
- (ii) Sharp in responses and works like computer and knows the all the social skills (long term memory).
- (iii) (a) Works as "barber" performance on cutting a hair and executes work properly with proper manipulation of hands and legs.  
(b) Worked efficiently and smoothly

**4. General Cognitive Themes**

- (i) "SIANA", a man full of wisdom and comprehend more.
- (ii) "DANA", one who has rational approach toward life affairs. ((In sightful and logical in daily life affairs).
- (iii) Now in and outs of life and comprehensive in social set up and informative.
- (iv) Problem solver: Tries to solve the problem regarding collective and individualistic affairs.
- (v) Carefully plans in daily life.
- (vi) Good in perception and social understanding.

Above mentioned comparison elaborated and distinguishes the two perspectives of intelligence. Comparison reveals that some concepts or items are overlapping or common in both the criterions but much differences in contents of the items or detailed behaviors or themes are there. On the other side, large pool of concepts or items are very contrasting to each other in constructs and contents overall. Simple equivalent words are not significant and sufficient for comparison. These similar factors or scales show shift in meaning in indigenous or other western cultures. Simple similar categories of scales or item words may be understood as general or universal but they are also more likely to be understood (interpreted) differently and are less predictive of behavior and more subjective to response styles. These were situation specific and cultural embedded. For example "Bulor", is a man, comprehensive and vibrant in speaking in meetings recognized as a master of verbal ability in above comparison, but it is not verbal ability only, he posses many folds of other abilities as well. Only knowing more words or informations is not enough to fulfil the content or construct of this very theme in Punjabi culture but other perceptual logical and reasoning abilities are also included in it. Other overall comprehension and understanding enhance this ability, too. Another example is worth quoting from general cognitive scale or dimension. It is an "assessment" item. In etic "assess", represented by block building and puzzle solving, on the other side, "assessment" for emic view as to assess the situation or person confronting in real life situations, are different on different occasion and times. It is also obvious in the comparison that western tests have major weakness that they reflect concepts, values and work habits which may be lacking in non-western cultures.

In response to above comparison, the study aims to compare emic conception of Punjabi intelligence with western folk concept. It would have been

best to collect parallel emic concept of intelligence from psychologically naive informants of their respective western cultures. Rationale of the investigator is that more indigenous scientific concepts in non-western cultures will be derived, initially, from sources other than scientists steeped in western psychological traditions. Ironically, it should be pointed out that many western "scientific" dimensions have also been derived from their folk concepts and natural language of the culture. Thus our comparison is probably not a 'asymmetrical' as it may appear in first glance. After further empirical analysis, emic conception of Punjabi intelligence should attain a status as scientific concept analogous to intelligence concepts in western psychology. The emic-etic distinction is not a dichotomy or either/or phenomenon. The investigator's expectation is that emic dimension will not represent entirely unique intelligence phenomena relative to other culture (specially eastern cultures), but cultural differences in the organization or structure of both culture-comparable and culture-unique situational behaviors.

Above comparison also raised other issues, as what language expression has been used in instrument to explore the local intelligence and words presented to informants. It is unclear whether derived emic conceptions will differ as a result of the investigator's choice of language terms and procedure or otherwise. In present study, investigator selected rural adults as informants. Again, we might have obtained different intelligence conceptions from more educated or urban informants or Pakistani psychologists. This issue relates to another: How meaningful is it to compare "folk concept" with measure of "scientific concept". It is argued that such comparison are not only appropriate, but also of considerable theoretical and practical importance, because of widespread use of western measure in non-western settings and cultures. Investigator of the present study extracted the following implications of this very comparison. First western-type

intelligence tests measure a construct of intelligence that only partially overlaps emic (folk) conceptions of intelligence in the rural Punjab province of Pakistan. Second, emic conception is not only purely cognitive, but also encompasses indigenous skill, learning, social, environmental, ethical and motivational components that are not well covered by western type tests (e.g., "everyday", "practical, "real world" or contextual intelligence", Sternberg, 1984). Third, it is not possible, however, that etic measure provide better prediction of one societal criteria (e.g., school performance). A measure on the basis of emic conception of intelligence might be more useful as predictors of performance in school adopting an indigenous educational curriculum (e.g., relevant to agricultural and animal-care skills). In this regard Serpell (1977) strongly expresses the need for a "greater convergence between the conception of intelligence held by the community at large and that favored by the educational system". Studies of the relationship between components of cognitive competence and requirements for success in school or of particular importance for maximizing intellectual power and educational attainment in society. Other socially significant criteria are also needed to assess the indigenous competencies of Punjabi speaking people of Pakistan. It would also be important, yet to be decided, to study how this social intelligence can be transferred to present-day urban and industrial settings, to serve the wider national community without being degraded into nepotism and corruption.

These are possible implications of the role of concept of intelligence. But what of the research? The time to turn to new conceptual schemes, in order to generate new research programs, based on more genuine aims, is long overdue. The conceptual scheme investigator of present study has attempted to outline and suggest a variety of aims as the basis of a research program For example,

- i. The characterization and elucidation of human intelligence as the most prominent species-specific, adaptive system, with due regard to the conditions of its evolution and nature of its adaptiveness.
- ii. A major assault on the nature of concepts and concept formation, as the primary vehicles or 'mental organs' of intelligence.
- iii. The description and simulation of the action of the system on the micro-scale as well as in general terms.
- iv. A detailed analysis of the conditions governing the growth and development of the system (as opposed, say, to the aim of simply boosting scores on the narrowly conceived index by the identification of 'environmental correlates' of such performance).
- v. The explanation of individual and group differences as a manifestation of the nature of the system itself. (It was always seemed to us that psychometry, with its obsession with a linear scale, has grossly underestimated the extent and quality of individual differences in intelligence).
- vi. Device taxonomies and tools of interrogation of data and new methods to validate old constructs. And also start inquiry to utilize computer power to help in decision functions.

In cross-cultural research on cognitive development, Sternberg (1982) specified three basic units of analysis that theories have identified:

1. Units involving species-wide forms of individual-environment interaction governed by universal (for homosapiens) constraints on behavior.

2. Units organized around culture-wide constraints that arise from adaptations to ecological demands occurred over the long course of a particular group's history of interactions with that environment and other cultures.
3. Units organized at the level of within-culture person-acting activities embodied in the variety of everyday activities that different people of different ages within different cultures must master.

It should be clear that three approaches are not mutually exclusive. A plausible case can be made for the importance of all three kinds (levels) of constraint and their associated internal mechanism (present study). The strategy for creating such a frame work is to begin with a basic unit of analysis in which independent and dependent variables come together so that the mechanism of mutual causation can be analyzed. The idea of an activity proposed by the Soviet sociohistorical school is attractive for this general methodological reason. It corresponds, on the one hand, to the anthropological unit of analysis variously called an event or context and on the other, to the psychological unit called a schema.

Western tests contain what western societies think ought to be learned to ensure the survival of those societies. There are no categorical cognitive imperatives in intelligence test content, only hypothetical constructs. So, accordingly, Punjabi speaking people have their own evaluative perspective, and emic intelligence cannot be measured by existing measuring procedures. In general, the investigator argues that future research programs must be aimed at a proper and adequate description of the form and function of the truths of intelligence, before quantitative comparisons. After thorough analysis of emic conception of intelligence it is estimated that achieving quantification by



psychometric view or any other alternative approach to measurement can become even remotely possible. This constitutes a fundamental challenge for psychology.

These implications further instigate to discover universality in "adaptedness and goal directed" behavior perceived as intelligent. In this regard, Goodnow (1980) gives an idea about cognitive development in different cultures, of "intellectual socialization". We all accept the notion that we are socialized into "proper" social behavior: covering proper forms of speaking, sitting, dressing show consideration for others, being honest, living up to one's obligations etc. It is less clear in both, "everyday" and psychological theory that we are socialized into "proper" ways of thinking and learning; proper for our age, sex, and situation. There are ways in which we are supposed to learn, supposed to think, supposed to ask and answer questions, supposed to solve problems. One of the assets of cross-cultural psychology (area of present research) is that the area has brought us to a clear awareness of intellectual "manners" or values, shifting explanations in terms of "deficit" to explanations in terms of skills that vary across cultures in their perceived relevance and desirability.

There are so many questions, yet to be answered, which intelligence or ability universally accepted as intelligence or other criteria to assess this conception as specie specific relation to environment and natural adaptation or which type of "goal" directed activity" needed to homosapians. These implications are not for east or west or north or south. As Dasen (1984) properly elaborates:

"Could we, in our industrialized west, not learn something from the African definition of intelligence? Despite Vernon (1979) fears of a down-grading of intellect, some breakdown of western mores and standards could only, be beneficial, if it would allow us to avoid the ecologically and socially



catastrophic over-reliance on science and technology. Our society, values mainly intellectual skills, and uses these selfishly, in particular, for developing more deadly weapons, over-exploiting non-renewable resources, and increasing its wealth at the expense of the third world. Would not these skills be more useful if they were more integrated with social skills, in the service of the world as a community"?

The key to understand the limits of western frames of mind, and of their means of measurement, is clearly found in the investigation of intelligence in cross-cultural psychology. Themes and behaviors emerged from the present study also describe the dispositional qualities, affective habitual information processing system, inferences from environment (ecology) and specific and generalizable skill clusters necessary for survival in agricultural communities. Emic perspective of intelligence contains the social, ethnical, collectivistic and motivational components as compared to individualistic and isolated conception of intelligence in the western culture. In sum, an understanding of intelligence, as it functions in the real world, requires an acceptance of a kind of pluralism that transcends the notion of an isolated individual.

Investigator has stressed when cognitive and motivational processes are discovered, intelligence is invented (Sarason, 1981). "Intelligence" is a convenient label for that collection of dispositions that, in combination result in adaptive behavior in a certain socio-cultural milieu. It is not any single thing, either within or between such milieus. Rather it is a complex mixture of ingredients that can differ from one socio-cultural milieu to another, and even from one individual to another (Wechsler, 1958).

A current single study cannot build a new theory by formulation for 'cognitive constructionism' to a Punjabi culture (Irvine, 1988). To provide a "new structure of intellect" for the Punjabi speaking people, it would require evidence from other paradigms and research programs that are not available. To construct it only from psychometric tests would be a limited step. To fuse emic and etic perspectives of intelligence would build, for psychology as a whole, one content bridge between cognition and affect, which modern theories of intelligence require, if they are to become scientifically credible. Above discussion shows how much is yet to be done to devise a new theory of intelligence for any society but long journey begins with a single step. Our destiny is to indegenize all other psychological phenomena along with socially embedded concept of intelligence.

### **Limitations of the Study**

1. As far as limitations of the study are concerned, it may be reiterated that due to the scarcity of the resources and time restraints, the larger sample of the Punjabi culture could not be used. So it should be increased for greater authority of the results.
2. The sample was limited to the male population; women should also be included to increase the ecological generalizability.
3. Another limitation of the present study could be that it covers the perspective of illiterate people only other studies on educated people of urban areas can give comparison and contrast of the results of the study. Other studies on children and vary old people may give a new dimension to the emic conception of Punjabi people.

### **Recommendation**

1. Emic research work is also the need of the day to be conducted on sub-cultures of Pakistan like Balochi, Pushtoon and Sindhi cultures.
2. Every single theme, from 30 themes concluded in present study, needs further explanations and descriptions to understand the emic conception on broad bases.
3. The same research work can also be replicated with refinement of methodology.
4. To grasp the whole picture of intellect in Punjabi culture, future research programme must be need by other paradigms, framework and taxonomies build by cross-cultural psychologist.

5. Further research needs to be carried out in order to study other stages of emic research strategy and further information can be collected to indigenousing the very phenomenon of intelligence.
6. The study can also be carried out to match the educational outputs with socially valued intelligences and paved the way for future education aims and objectives and education must be correspond by the socially important abilities and skills of the society.
7. Results of the study can be utilized for cross-cultural comparison.

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## ANNEXURES

## ANNEXURE-I

### First Step

List of two hundred statements collected from the data obtained in the field.

- 1) Having positive mental approach towards life. چنگی مت ہووے۔ (۱)
- 2) Applies reason and general understanding دماغ نال سوچ سمجھ کے کم لین والا۔ (۲)
- 3) Does not indulge in irrelevant activities. چنگی مندی وچ نہ آئے۔ (۳)
- 4) Keeps the company together to advance. چار بھائیوں کو نال لے کے چلے۔ (۴)
- 5) Justice loving. انصاف پسند ہوئے۔ (۵)
- 6) Cooperative with the poor. ماڑے نال تعاون کرے۔ (۶)
- 7) Sympathetic towards widows. بیوہ نال ہمدردی کرے۔ (۷)
- 8) Facilitates in the marriages of poor girls. غریب بچیاں دی شادی کرا دئے۔ (۸)
- 9) Mind's his own business. کام نال کام رکھے۔ (۹)
- 10) Welfare minded. بھلا سوچے۔ (۱۰)
- 11) Fair minded. ذہن صاف ہوئے۔ (۱۱)
- 12) Calls a spade a spade. حق نوں حق آکھے۔ (۱۲)
- 13) Sagacious and prudent. دانہ ہوئے۔ (۱۳)
- 14) Fair in transactions. دیہاری یا لین دین دا صاف ہوئے۔ (۱۴)
- 15) Cares for the poor. غریب کا خیال رکھے۔ (۱۵)

- 16) Unbiased. (۱۶) تعصب نہ کرے۔
- 17) Does not agree to every proposal or suggestion. (۱۷) ساریاں دی ہاں وچ ہاں نہ مائے۔
- 18) Well versed in knowledge. (۱۸) عالم فاضل ہوئے۔
- 19) Earns livelihood for his family. (۱۹) ہاں چیاں نوں کما کے کھلاوے۔
- 20) Cooperative in general. (۲۰) تعاون کرے۔
- 21) Earns fair and honest living. (۲۱) روزی حق ہاں کماے۔
- 22) Mystic (only one aspect of personality) (۲۲) اللہ اللہ کرے۔
- 23) Quarrelsome. (۲۳) لڑے جھگڑے نہ۔
- 24) Exploits his physical and mental abilities. (۲۴) اپنے وجود ہاں محنت کرے۔
- 25) Having transparent intention. (۲۵) نیت صاف ہوئے۔
- 26) Man of principles. (۲۶) با اصول ہوئے۔
- 27) Keeps himself busy in some how or the other. (۲۷) کوئی نہ کوئی کام کرے۔
- 28) Avoids bloodshed. (۲۸) قتل و غارت نہ کرے۔
- 29) Respectful to the elders. (۲۹) وڈیاں دا ادب کرے۔
- 30) Good in dealing with the neighbor. (۳۰) ہمسائے ہاں اچھا سلوک کرے۔
- 31) Bitter in talk but otherwise in actions. (۳۱) منہ دا کوڑا لیکن عمل کا اچھا ہوئے۔
- 32) Not immoral. (۳۲) بے حیا نہ ہوئے۔

- 33) Does not complain and backbite. (۳۳) چغلی نہ کرے۔
- 34) Honest. (۳۴) دیانت دار ہوئے۔
- 35) Does not harbor malignance. (۳۵) دل وچ چور نہ ہوئے۔
- 36) Pays thanks to God and contented. (۳۶) خداداد شکر ادا کرے۔
- 37) Able to execute his responsibilities properly. (۳۷) معاملات اچھی طرح نبھائے۔
- 38) Not sexually perverted. (۳۸) جنسی نہ ہوئے۔
- 39) Does not approve of racial (or cost) discrimination. (۳۹) ذات پات و اتاقل نہ ہوئے۔
- 40) Purged of social evils (theft, gambling, rape). (۴۰) شرابی، جواری اور زانی نہ ہوئے۔
- 41) Proves good governor. (۴۱) اچھا حکمران اچھا ثابت ہوئے۔
- 42) Self relying. (۴۲) خود انحصار ہوئے۔
- 43) Sharp minded. (۴۳) ذہن تیز ہوئے۔
- 44) Skillful. (۴۴) ہنرمند ہوئے۔
- 45) Conforms to the suggestion directed to him. (۴۵) سمجھائے توں سمجھ جائے۔
- 46) Courageous. (۴۶) جرأت مند ہوئے۔
- 47) He is a regular sayer of prayer. (۴۷) نمازی ہوئے۔
- 48) Cultured in talk. (۴۸) اچھی گل بات کرے۔
- 49) Landlord, mentally and physically. (۴۹) چوہدری (زمیندار) ہوئے۔

- 50) Man of wisdom. عقل مند ہوئے۔ (۵۰)
- 51) Punctual. پابند ہوئے۔ (۵۱)
- 52) Neat and clean in dealing and appearance. صاف ستھرا ہوئے۔ (۵۲)
- 53) Cherishes the sense of self-accountability. خود اذیت سائی کرے۔ (۵۳)
- 54) Attends to company of elders. بزرگانِ دی صحبت وچ بیٹھن والا ہوئے۔ (۵۴)
- 55) Man of actions and not merely informative. جتنا پڑھے اتنا کم کرے۔ (۵۵)
- 56) Sincere. پر خلوص ہوئے۔ (۵۶)
- 57) Emiable. خوش اخلاق ہوئے۔ (۵۷)
- 58) Religiously well informed. دینی معلومات ہوون۔ (۵۸)
- 59) Gets up early in to morning. صبح سویرے اُٹھے۔ (۵۹)
- 60) Owns healthy thinking. اچھی سوچ سمجھ دالاک ہوئے۔ (۶۰)
- 61) Observes the injunction of the Quran and Sunnah. قرآن اور سنت دا پابند ہوئے۔ (۶۱)
- 62) Expert in his profession. کام یا پیشہ دے مطابق تاک ہوئے۔ (۶۲)
- 63) Should not evil genius. عقل دا منفی استعمال نہ کرے۔ (۶۳)
- 64) Execute his business fairly. دوکان داری صحیح کرے۔ (۶۴)
- 65) God fearing. خدا ترس ہوئے۔ (۶۵)
- 66) Hospitable. مہمان نواز ہوئے۔ (۶۶)

- 67) Communicative. (۶۷) سمجھانے دی صلاحیت پائی جائے۔
- 68) Preacher. (۶۸) دعوت و تبلیغ کرے۔
- 69) Recognizes virtuous and vicious accordingly. (۶۹) برے نوں بُرا، اچھے نوں اچھا کہے۔
- 70) Helpful. (۷۰) دوسرے انسان وے کام آئے۔
- 71) Possesses pregnant views. (۷۱) گل بات وچ وزن ہوئے۔
- 72) Approves of collectivism. (۷۲) مل جل کر آئے چلے۔
- 73) Conscious and alert. (۷۳) ہوش و حواس والا ہوئے۔
- 74) Embeccile is not. (۷۴) موٹی عقل دا مالک نہ ہوئے۔
- 75) Wealthy and authority holder. (۷۵) چودھری اور امیر ہوئے۔
- 76) Faithful. (۷۶) ایمان دار ہوئے۔
- 77) Patient. (۷۷) حوصلے اور صبر والا ہوئے۔
- 78) Magnanimous. (۷۸) ظرف اعلیٰ ہوئے۔
- 79) Execution is slow but complete. (۷۹) آہستہ لیکن مکمل کام کرے۔
- 80) Helps in the need of hour. (۸۰) اوکھے دلیے کام آئے۔
- 81) Self scarifying. (۸۱) قربانی دئے۔
- 82) Humble and temperate (moderate). (۸۲) دھیما تے عاجز ہوئے۔
- 83) Ready wit. (۸۳) حاضر جواب ہوئے۔

- 84) To the point. (۸۴) نقطہ یا معاملہ دے مطابق کل بات کرے۔
- 85) Soal oriented. (۸۵) با مقصد ہوئے۔
- 86) Probes the solution. (۸۶) مسئلہ کا حل ڈھونڈے۔
- 87) Spends money from his own pocket. (۷۸) پیسہ خود خرچ کرے۔
- 88) Naturally upright. (۸۸) فطرتاً صحیح ہوئے۔
- 89) Not altogether rationalist. (۸۹) ہر ویلے عقلی نہیں ہوتے۔
- 90) Understands the trouble some situation. (۹۰) مصیبت دی صورت حال میں سمجھے۔
- 91) Praised even after death. (۹۱) مرنے کے بعد لوگ اچھا کہیں۔
- 92) Does not feather his own nest. (۹۲) مفاد پرست نہ ہوئے۔
- 93) Careful. (۹۳) محتاط ہوئے۔
- 94) Lend his tongue rarely. (۹۴) کم بولے۔
- 95) Comes off a noble parentage. (۹۵) وراثت ٹھیک ہوئے۔
- 96) Strict person is wise. (۹۶) غصہ والا عقل مند ہوتا ہے۔
- 97) True to his words. (۹۷) بات کا پکا ہوئے۔
- 98) Empathetic. (۹۸) کسی کی تکلیف نوا اپنی تکلیف سمجھے۔
- 99) Has a sense of honor. (۹۹) غیرت مند ہوئے۔
- 100) Extends social welfare. (۱۰۰) خدمتِ خلق والا ہوئے۔



- 101) Successful. (۱۰۱) کامیاب ہوئے۔
- 102) Insightful and sagacious. (۱۰۲) دانائی ہوئے۔
- 103) Emiable does not. (۱۰۳) عزت نال ہوئے۔
- 104) Keeps the company. (۱۰۴) پیڑیاں وچ تہنہنے والا۔
- 105) Does not poses. (۱۰۵) نمائش نہ کرے۔
- 106) Man of wisdom. (۱۰۶) سیانا۔
- 107) Having operative mind. (۱۰۷) چیدار مانع کام کرے۔
- 108) Intellectual. (۱۰۸) دانش والا ہوئے۔
- 109) Sensitive. (۱۰۹) احساس مند ہوئے۔
- 110) Responsible and dutiful. (۱۱۰) ذمہ دار ہوئے۔
- 111) Not obstinate. (۱۱۱) ماننے والا ہوئے۔
- 112) Recognizes others opinion. (۱۱۲) سننے والا ہوئے۔
- 113) Good counselor. (۱۱۳) اچھا مشورہ دے۔
- 114) Fair in dealing. (۱۱۴) دیساریا لین دین دا ٹھیک ہوئے۔
- 115) Does not deceive. (۱۱۵) دغا نہ دے۔
- 116) Not immature. (۱۱۶) نابالغ نہ ہوئے۔
- 117) Acknowledge by the world. (۱۱۷) دنیا نے یا کئے۔

- 118) Accommodative and flexible. (۱۱۸) دوسریاں نوں برداشت کرے۔
- 119) Works for locality. (۱۱۹) علاقے داکم کرے۔
- 120) Make right decisions. (۱۲۰) فیصلہ صحیح کرے۔
- 121) Man of vision. (۱۲۱) معاملات فہمی ہونے۔
- 122) Conscious of situation. (۱۲۲) وقت دی نزاکت نوں سمجھے۔
- 123) Blessed with divine guidance. (۱۲۳) ہدایت والا ہونے۔
- 124) Modest. (۱۲۴) شرم و حیا والا ہونے۔
- 125) Respectful to parents. (۱۲۵) ماں باپ دی عزت کرے۔
- 126) Pious. (۱۲۶) پر حیز گار ہونے۔
- 127) Forgiving. (۱۲۷) درگزر کرے۔
- 128) Well planned. (۱۲۸) منصوبہ بند ہونے تے اگا چھاو کیجے۔
- 129) Loves nature. (۱۲۹) خدائی (نطرت) نال محبت کرنے والا۔
- 130) Be able to distinguish good and bad. (۱۳۰) اچھے بُرے بندے تے کم دی تمیز۔
- 131) He is practical. (۱۳۱) عملی ہونے۔
- 132) Conceives others instructions. (۱۳۲) سمجھانے نال گل دماغ وچ ٹھانے۔
- 133) Has relation with good person. (۱۳۳) اچھے بندے نال تعلق رکھے۔
- 134) He is not ignorant. (۱۳۴) جاہل نہ ہونے۔

- 135) Admits his mistake. (۱۳۵) اپنی غلطی تسلیم کرے۔
- 136) Not agreed always. (۱۳۶) بے طمع ہوئے۔
- 137) Does not interrupt others. (۱۳۷) ہینگے بازی نہ کرے۔
- 138) Holds a social values. (۱۳۸) سماجی قدروں والا ہوئے۔
- 139) Worldly wise man. (۱۳۹) جہاں دیدہ ہوئے۔
- 140) Brings the people closer to each other. (۱۴۰) لوگاں نوں جوڑے۔
- 141) Volunteer. (۱۴۱) بغیر لالچ توں کم کر نوالا۔
- 142) Well versed and nice in conversation. (۱۴۲) گفتگو اچھی ہوئے۔
- 143) Reliable. (۱۴۳) قابل اعتماد ہوئے۔
- 144) Accepts others wiser. (۱۴۴) دوسرے نوں اپنے توں زیادہ عقل مند سمجھے۔
- 145) Perfect. (۱۴۵) مکمل ہوئے۔
- 146) Thinks before he speaks. (۱۴۶) پہلے تولے، پھر بولے۔
- 147) Good human being. (۱۴۷) اچھا انسان ہوئے۔
- 148) Constructive mind. (۱۴۸) تعمیری ذہن ہوئے۔
- 149) Brave. (۱۴۹) بہادر ہوئے۔
- 150) Obeys the human rights (devised by God). (۱۵۰) حقوق العباد ہوئے۔
- 151) Works without political intention. (۱۵۱) کم سیاست لینی نہ کرے۔

- 152) Peace loving. (۱۵۲) امن پسند ہوئے۔
- 153) Conqueror of every field. (۱۵۳) غازی ہوئے۔
- 154) Realistic. (۱۵۴) حقیقی سوچ والا ہوئے۔
- 155) Social worker. (۱۵۵) سماجی کام کرے۔
- 156) Loyal to the country. (۱۵۶) ملک دا وفادار ہوئے۔
- 157) Unprejudiced. (۱۵۷) غیر جانبدار ہوئے۔
- 158) Futuristic orientation. (۱۵۸) دور دی سوچے۔
- 159) Follows his own thoughts (or ideology). (۱۵۹) اپنی سوچ تے عمل کرے۔
- 160) Preserve his ego. (۱۶۰) اتانوں برقرار رکھے۔
- 161) Consider all the dimensions of a problem. (۱۶۱) مسئلہ نوں ہر پاسے توں دیکھن والا۔
- 162) Does not work with out planning. (۱۶۲) بغیر سوچے سمجھے کم نہ کرے۔
- 163) Original in his ideas. (۱۶۳) سوچ یا خیالات اپنے ہوں۔
- 164) Ability to judge and in social calculation or estimation. (۱۶۴) گویزی ہوئے۔
- 165) Preserves other's honor or dignity. (۱۶۵) عزت داساں جھی ہوئے۔
- 166) Initiates or performs work with intrinsic motivation. (۱۶۶) اہری ہوئے۔
- 167) Bears sound and healthy mind extraordinary. (۱۶۷) ذہن توانا تے درست ہوئے۔
- 168) Extraordinary. (۱۶۸) غیر معمولی ہوئے۔